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January 1976

Journal of the Medical Society of New Jersey

Old Barracks at Trenton Military Hospital
Fred B. Rogers, M.D.

New Jersey's Contributio to Medicine
Morris H. Saffron, M.D

Prominent Medicine Convenes at Lumberton
A. R. Henderson, M.D.

A 19th Century Odyssey
Lucy L. Aiello, M.T.

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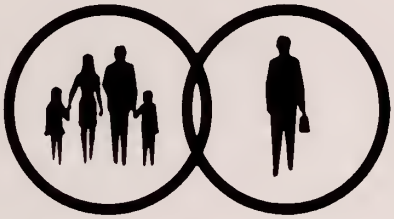

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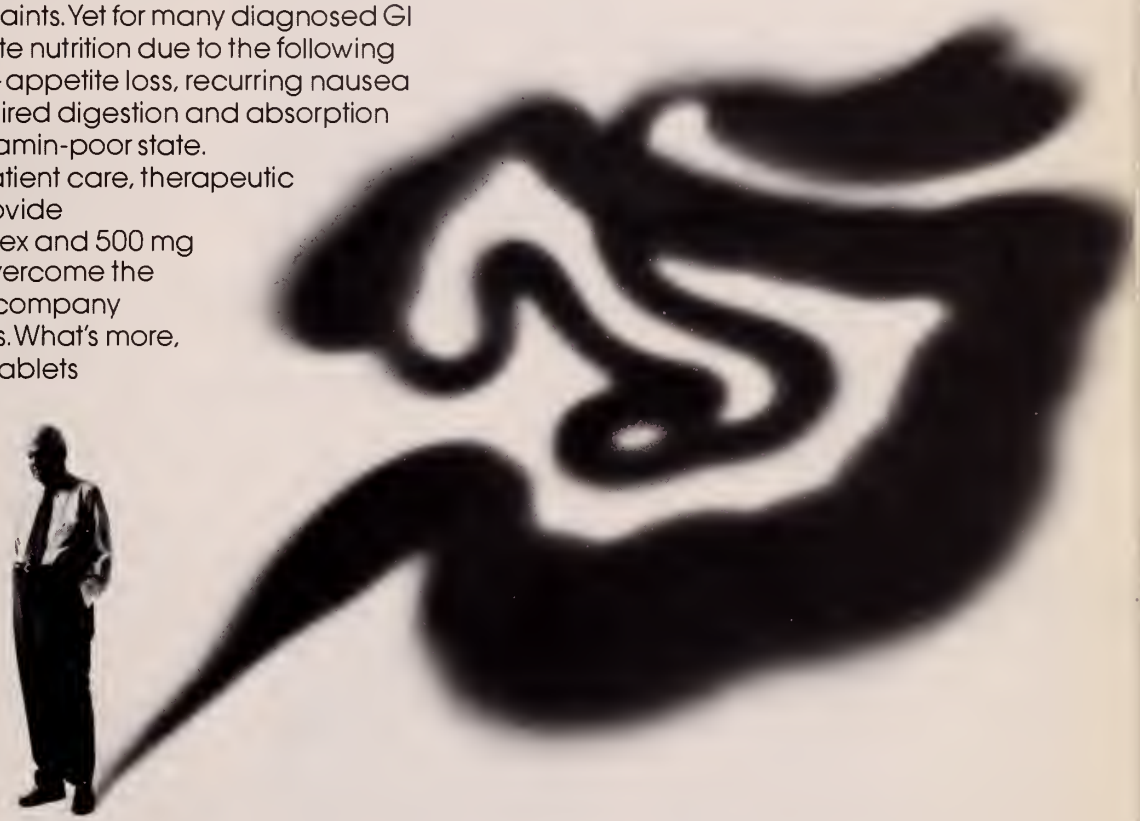

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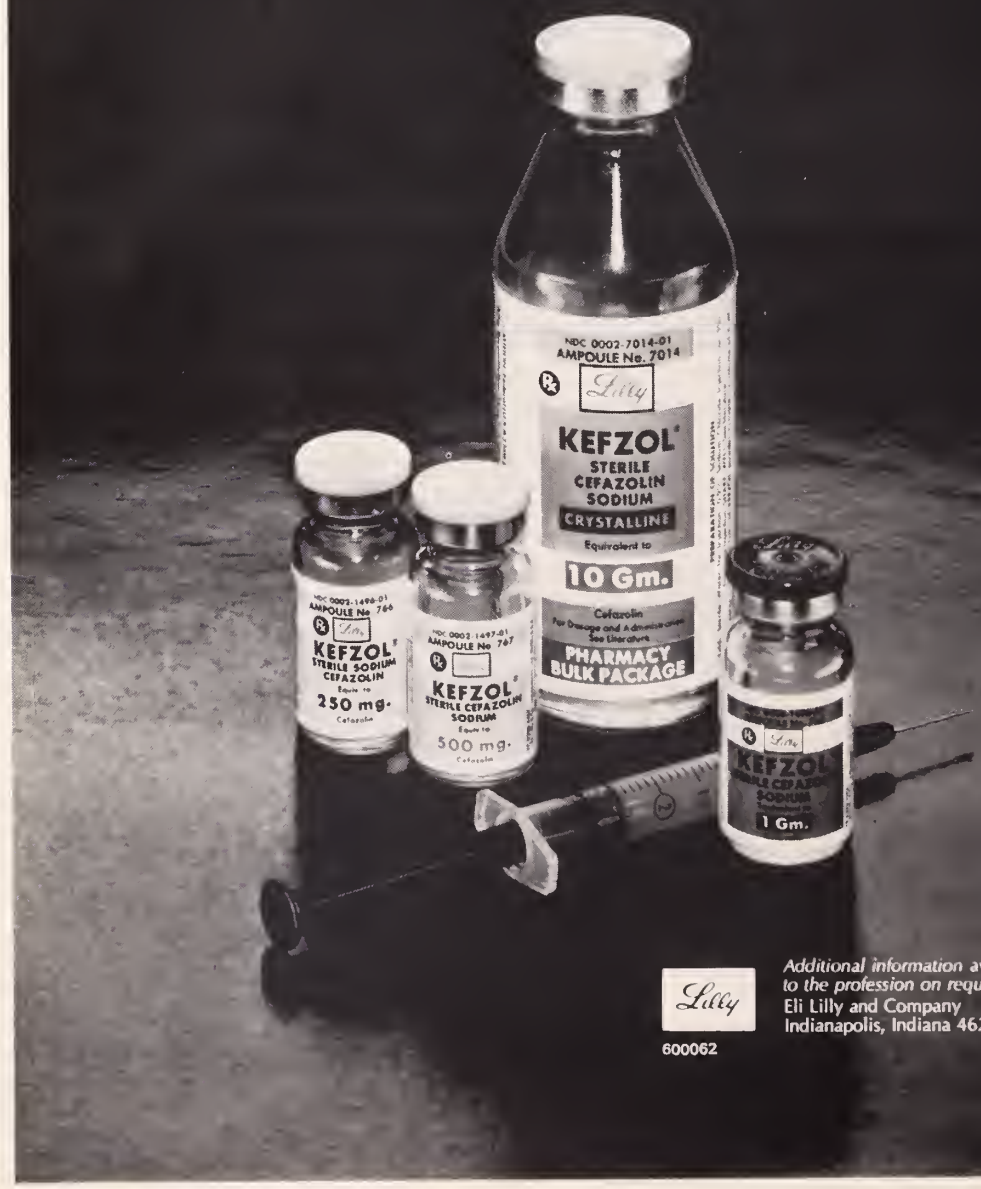

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EDITORIALS

Our New Cover

What better time to take on a new face than the beginning of our Bicentennial Year? With the execution of a primary artistic rendering, William Arthur Smith has symbolically brought together our nation, our state, and our profession.

The striking woodcut which served as the basis of our cover consists of the bald eagle, the caduceus, and the stars which represent the original thirteen states. The bald eagle, the national emblem of the United States, is said to symbolize courage and military prowess, while its effortless flight gives it the appearance of majesty. The caduceus speaks for itself. Among the stars, the third represents the State of New Jersey — the third State to join the union.

The Medical Society of New Jersey had its first meeting (July 23, 1766) when our State was still a colony of Great Britain. It is most appropriate that New Jersey Medicine pay honor to America's Bicentennial. A.K.

American Physicians: 1776 — 1976

Physicians are the same in 1976 as they were in 1776! They have the same human characteristics and qualities which led their medical progenitors into the health services two centuries ago, but the trappings are different. The route through medical education, research, and application of new knowledge has accelerated precipitously in recent years, but the nucleus of the matter — the physician — is basically consistent.

What an experience it would be to go back in time and attend rounds with Dr. Benjamin Rush, a signatory of the Declaration of Independence, as he visited yellow fever victims during an epidemic in Philadelphia in 1773! How exciting it might have been to know Dr. Joseph Warren, a Harvard graduate, a leading Boston physician, and a major revolutionist, who dispatched Paul Revere on his "midnight errand" with instructions to warn the citizens that the British were on the march and to arouse the militia to harass the "Red Coats." At age thirty-four, he "gave speeches, wrote articles, attended countless caucuses and meetings, petitioned and attacked the authorities, and was a dominant figure in the Boston Massacre trial and the Tea Party."[1]

Warren was described by his contemporaries as "kind, friendly, entirely frank and open in all he said and did, scrupulously fair and humane in dealings with friend and enemy alike — a man universally trusted and admired." "Gentle, noble, and generous," he was invariably liked — except by the British who considered him "the greatest incendiary in all America."[1]

One need not strain his memory to identify modern counterparts of these great physicians. Time and tides may have altered our lives and our circumstances, but the human foundation remains intact.

What really stimulated the physician of 1776 and his 1976 replica to select medicine? Was it different then than now? Not really! The motivations at each end of the two-hundred-year span have remained constant — an intense desire to learn, an aspiration to serve mankind, and a great scientific curiosity. These characteristics must have been present in Dr. Ephraim McDowell, the surgeon who performed the first ovariectomy in 1809, as well as in the heart transplant surgeons, Christian Barnard and Norman Shumway.

The intrinsic respectability of the medical profession, with its continuity over millennia, has been enticing to many. Physicians of the present, like their predecessors, accept the long hours, the disruptive life style, the family inconveniences, the personal emotional stress of difficult medical and surgical problems, and the dangers to physical health from exposure to highly contagious diseases. The "creature comforts" and the position of respect in the com-

[1]Ketchum RM: Men of the Revolution—I. *American Heritage* 22:21, (August) 1971.

munity are earned — today, as in days past. The ever-present danger to the modern physician who makes a house call at night in Trenton, Newark, or Jersey City is no less than the risk to life and limb taken by the pioneer physicians on horseback as they traveled through the woods to their patients' cabins two centuries ago.

Whether or not you agree with their politics, their philosophies, or their methods, the modern equivalents of Warren, Rush, and the others do exist. Dr. Benjamin Spock put his substantial reputation "on the block" when he spoke and demonstrated against government actions in the recent past. The California physicians who enacted a "job action" and demonstrated against the provocateurs of the malpractice imbroglio had the equivalent of a Boston Tea Party. The Committee on the Care of the Diabetic has brought legal action against a branch of the United States Government for "redress of grievances." The American Medical Association has instituted court procedures to combat governmental edicts which have been deemed to be counter to the best interests of American citizens and American medicine. Like Dr. Warren and his colleagues, these groups and individuals have sought relief, but they have used legal measures against the oppressive regulations of the politicians who currently control our government.

Let us welcome America's Bicentennial Year and not forget the principles of our American Medical forefathers.

A.K.

The Cover Artist

William Arthur Smith, N.A.
Painter-Muralist
Printmaker-Author

Mr. Smith, who was commissioned to design and execute a special Bicentennial cover for *The Journal* of The Medical Society of New Jersey, is a "man for all seasons." His artistry speaks for itself and his list of accomplishments, awards, and honors, as described in *Who's Who in America* and *Who's Who in the World,* is much too long to repeat in detail.

A major artist, whose work has been exhibited in nearly every important museum in the United States and in more than thirty one-man exhibitions on three continents, Mr. Smith is uniquely qualified as a Bicentennial artist. He designed eight Bicentennial stamps (Rise of the Spirit of Independence series, Boston Tea Party, and others) for the United States Postal Service. His most relevant historical mural, which was commissioned by the State of Maryland, consists of nine panels and measures 1,000 square feet. It can be viewed at Maryland House in Aberdeen, Maryland.

A past-president of the American Watercolor Society, Mr. Smith is the president of the International Association of Art, a UNESCO-affiliated organization of painters, sculptors, and graphic artists from 69 countries.

The cover of *The Journal* is a unique work of art which was prepared specifically to express New Jersey Medicine's pride in America's Bicentennial.

MEDICAL HISTORY

The Old Barracks at Trenton: Military Hospital of the Revolution

Fred B. Rogers, M.D./Trenton*

The Old Barracks at Trenton stands as a unique memorial to the Colonial and Revolutionary history of our country. Erected in 1758, on what are now the New Jersey State Capitol grounds, this handsome U-shaped stone building has witnessed over two centuries of American history. Originally built to quarter British troops during the French and Indian Wars, it was rescued from obscurity and restored by patriotic citizens at the turn of this century. In addition to its present value as an historical and architectural shrine, it houses meeting rooms, a reference library, and a fine museum of *Americana.* Although there were five such military quarters erected in New Jersey prior to the Revolution, the one at Trenton alone remains today. Its important role as a military hospital during the War of Independence is particularly worthy of recall during the Bicentennial Celebration.

Colonial medical practice and education were rudimentary during the eighteenth century. Only two medical schools — now those of the University of Pennsylvania and Columbia University — were established before the outbreak of hostilities with Britain in 1775. Contact with military surgeons who accompanied British troops serving in the Colonial period, however, had a beneficent effect on the practitioners of that day. Dr. Stephen Wickes and other medical historians have traced this valuable contact of native doctors with their better-trained European colleagues; this association provided a subtle stimulus to improved medical education and practice in the new land. The first provincial society of medical men in this country — The Medical Society of New Jersey — was organized at New Brunswick on July 23, 1766, and headed by the Rev. Robert McKean, a clergyman-physician who also served as schoolmaster at the military barracks in Perth Amboy. Drs. William Burnet, the Society's second president, and John Cochran, its third president, later became the Surgeons-General of the Eastern and Middle Departments of George Washington's army. Dr. Cochran participated in the decisive Battle of Trenton.

The Old Barracks, South Willow Street, Trenton, today.

When Colonial America decided to fight her War for Independence, she lacked practically everything to conduct a war except a *cause.* Its Medical Department's first Director-General (Surgeon-General) was Dr. Benjamin Church of Boston. He proved to be a poor choice for he was soon imprisoned for "traitorous correspondence with the enemy." His successor, Dr. John Morgan of Philadelphia, European-educated founder of the first medical school in this country, worked assiduously to organize an efficient medical corps. Quarrels and political intrigue led to his unjust dismissal in 1777. A Philadelphia colleague, Dr. William Shippen, Jr., was appointed by Congress to replace Morgan. Shippen served until his resignation under pressure in 1781. It was during the directorship of Dr. Shippen that the Barracks at Trenton assumed its role as a military hospital.

---

*Read at the Rutgers Medical School, CMDNJ, Piscataway, October 1, 1975, on the occasion of a Bicentennial Symposium on "American Medicine during the Revolution." Reprints may be requested of Dr. Rogers, 301 West State Street, Trenton, New Jersey 08618.

The Trenton Barracks was used for various purposes during the Revolutionary War. In January, 1776, it was filled with British prisoners of war who were later evacuated to accommodate American troops. For a short period prior to the Battle of Trenton, a detachment of Hessian soldiers (British hirelings from Germany) occupied the building. After the successful blow at Trenton, groups of American militia and regular troops were quartered there. Shortly after the Hessian defeat at Trenton, a military hospital was established in the Barracks under the direction of Dr. Bodo Otto (1711-1787), an émigré physician from Brunswick, Germany, serving in the Revolutionary cause. There were few American casualities in the surprise attack at Trenton on December 26, 1776; four were wounded, including Lieutenant James Monroe of Virginia — later to become fifth president of the United States, and two died from exposure to cold. The Hessians, however, suffered 35 killed, 78 wounded, and over 900 captured. Among those killed was their commander, Colonel Johann Gottlieb Rall, who was visited by Generals Washington and Nathanael Greene as he lay dying of wounds and who was buried in the First Presbyterian Churchyard of the town. The wounded foes were promptly paroled and hospital facilities provided them under their own surgeons. Among the Hessian casualties were several officers who came under the care of Dr. Otto. Descendants in Reading, Pennsylvania, today own a German hymnal and sword given to the doctor by these patients.

Shortly after the disastrous Battle of Long Island, where Bodo Otto served as a surgeon to Berks County, Pennsylvania, Militiamen, he was selected by Dr. Shippen as one of the surgeons of the Flying Camp (mobile hospital). In February, 1777, Dr. Otto was appointed Senior Physician and Surgeon of the Barracks Hospital at Trenton, serving there until January of the following year. Transfer from field to hospital duty must have been a welcome change for Otto, then in his sixty-fifth year. Dr. Benjamin Rush, also a medical officer, noted his visit with Dr. Otto in Trenton on an inspection tour of hospital installations in August, 1777. In the following month the Barracks Hospital received many American casualties after the fierce Battle of Brandywine in neighboring Pennsylvania.

Where bullets killed one, disease killed at least ten soldiers during the Revolutionary War. Typhus, smallbox, pneumonia, and dysentery were major threats to life and health. The military hospitals, particularly the largest one located in the Moravian settlement at Bethlehem, Pennsylvania, did heroic service in coping with great numbers of sick and wounded — in the face of inadequate supplies and attendants.

A directive from General Washington to Dr. Shippen, written at Morristown in February, 1777, ordered that all recruits be inoculated against smallpox. Mass inoculation was practiced, the soldiers often bringing their wives and children for this service. In a letter dated February 17, 1777, Dr. Shippen directed that Dr. Bodo Otto report to Brigadier General Caesar Rodney of Delaware, commanding at Trenton, to inoculate Continental troops and take charge of the military hospital there. A copy of this letter and a portrait of Dr. Otto can be seen today at the Old Barracks. Otto, who served as a medical officer from 1776 to 1782, was paid just tribute by his superiors, Drs. Shippen and Cochran, for his professional skill. Dr. John Cochran of New Jersey, who replaced Shippen as Director-General of the Medical Department in 1781, served in this capacity until the formal conclusion of hostilities two years later.

In November, 1781, the Barracks at Trenton rendered further important hospital service. In that month Colonel Matthias Ogden effected the transfer of 1,600 invalid and sick troops from Yorktown, Virginia, for convalescent care. The State Legislature, however, followed with a resolution that 1,000 of these patients be sent to Burlington and only 600 to Trenton, since the former location offered more facilities for care. Dispatched in the Fall of 1782, these troops were the last military occupants of the Barracks. Shortly after the close of the war, in June, 1782, arrangements were made to convert the building to private dwellings. Later a street cut the original edifice in two; this hiatus was repaired on its restoration. The Old Barracks was opened to the public as an historic site in 1917.

The United States Army was demobilized following the Battle of Yorktown. A medical

staff-skeleton was retained and assigned to frontier posts and coastal garrisons. The American military surgeons, however, wiser in knowledge and experience gained in the Revolution, were now better equipped to deal with problems of their profession, which, before the war, had been primitive indeed. A review of the medical activities during the Revolutionary conflict shows that in spite of great material limitations, a medical department was provided for the fighting forces which coped with the major medical and surgical demands arising from the war. Dr. David Ramsay, physician and historian, in his early *History of the American Revolution* (1789) concluded that:

> Surgery was one of the arts which was promoted by the war. From the want of hospitals and other aids, the medical men of America had few opportunities of perfecting themselves in this art, the thorough knowledge of which can only be acquired by practice and observation. The melancholy events of battles gave the American students an opportunity of seeing and learning more in one day than they could have acquired in years of peace.

It was such experience, gained on battlefields and in installations such as the Barracks Hospital at Trenton, that helped give direction to the medical profession of a new nation.

References

1. Ramsay D: *The History of the American Revolution.* Trenton, New Jersey, James J. Wilson, 1811. 2 vols. vol. 2, pp. 404-405.

2. Toner J M: *The Medical Men of the Revolution.* Philadelphia, Collins, 1876. p. 113.

3. Gibson J E: *Dr. Bodo Otto and the Medical Background of the American Revolution.* Springfield, Illinois, Charles C Thomas, 1937.

4. Stevenson I: *The Physician in the American Revolution.* Ciba Symposia 2:498 (July) 1940.

5. Cottrell A T: *The Old Barracks at Trenton,* ed. 3. Trenton, New Jersey, The Old Barracks Association, 1957.

6. Rogers F B and Sayre A R: *The Healing Art: A History of The Medical Society of New Jersey.* Trenton, New Jersey, 1966. pp. 13-14, 41-42.

301 West State Street, Trenton

Remarks on New Jersey's Contribution to Medicine*

Morris H. Saffron, M.D., Ph.D./Passaic

New Brunswick will always remain a particularly appropriate site for any medical meeting in New Jersey for, as we all recall, it was in this provincial town that members of the profession first convened on July 23, 1766, to found the oldest, still viable, medical society in North America. The men who assembled at Duff's Tavern were well aware that important developments in medical education were taking place in the neighboring colonies. Only one year earlier the medical school at Philadelphia had opened its doors, and rumor had it that a second school at King's College in New York would soon be admitting students. The founders of our society were very much concerned that the Jerseys, long a haven of illiterate itinerants and outright quacks should not fall too far behind in the movement to improve the ethical and educational standards of the profession. Neither the small college at Princeton nor the newly chartered college in New Brunswick was in a position to entertain the idea of a medical school so these physicians sought, through organizational unity, the only available method of amending "the low state of medicine in New Jersey." It is evident from a study of the early minutes that attention was given to such business matters as a uniform fee schedule but much more time was spent on the discussion of scientific subjects.

The decade between the first meeting of the Medical Society and the Declaration of Independence was one of the most turbulent in American history. Even in agrarian, basically conservative New Jersey there was an air of tension and indecision as families and friends split widely on the matter of complete separation from the mother country. It is noteworthy that despite the atmosphere of crisis which proved so distracting to members of the Assembly, the Medical Society, ably represented by John Cochran and Moses Bloomfield, was able to push through the Legislature the first comprehensive law in the country relating to the examination and licensure of physicians for the right to practice medicine (1772). That the New Jersey act did represent a distinct milestone in the progress of American medicine is acknowledged by all historians of the subject.

It is also noteworthy that a goodly number of the most prominent physicians of the colony were among the first to take their stand with the proponents of separation, playing an active part in accumulating supplies against the inevitable struggle. Aside from the two men already named, William Burnet, Nathaniel Scudder, and Jonathan Elmer were among the presidents of the Society who were to play distinguished roles in the Continental medical service. Other Jerseymen who, though not practicing physicians, became deeply involved in medical affairs during the Revolution include Col. John Neilson of New Brunswick, John Witherspoon, president of the College of New Jersey, Abraham Clark and Elias Boudinot; these men were not only Jersey representatives in the Continental Congress, but all became prominent members of the Medical Committee which was empowered to supervise the activities of the hospital and the regimental surgeons.

Lacking a medical teaching facility on our own soil during this period, New Jersey could not offer her doctors the sounding board of the professorial rostrum. Nevertheless, a goodly number of men from this state managed to capture the ear of the profession-at-large. I mention a few names, familiar to me:

Lewis Condict, in his first term as a congressman (1812), pleaded vigorously for the emancipation of all slaves;

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*Presented before the New Jersey Society of Medical Historians, March 31, 1973, Rutgers University, New Brunswick. Dr. Saffron is Historian-Archivist of The Medical Society of New Jersey.

William J. Pierson, Jr., led the fight against drug adulteration, and advocated more stringent laws of quarantine control;

Ezra Mundy Hunt led the nation-wide effort toward stricter sanitary codes;

J. Henry Clark preached and wrote on the evils of alcoholism in the immigrant masses of Newark, and opened in that city one of the first free eye and ear clinics in the country;

Elias J. Marsh set a pattern for future ecologists in his spirited — though not entirely successful — attempt to control pollution of the Passaic River;

Fred Albee organized in our state the first rehabilitation center in the country;

Henry L. Coit and *Henry D. Chapin,* two pediatricians, saved thousands of infant lives;

Harrison Martland alerted the medical community of the world to the dangers of radioactivity. Without being at all chauvinistic we can agree that New Jersey has cause for legitimate pride in these men.

New Jersey made its great contribution, however, as a pioneer in the enlightened care of the insane. Spurred on by Dorothea Dix, the state opened the most modern institution in the country for the treatment of the mentally ill in 1848 and the Trenton hospital set high standards of care which others found difficult to attain.

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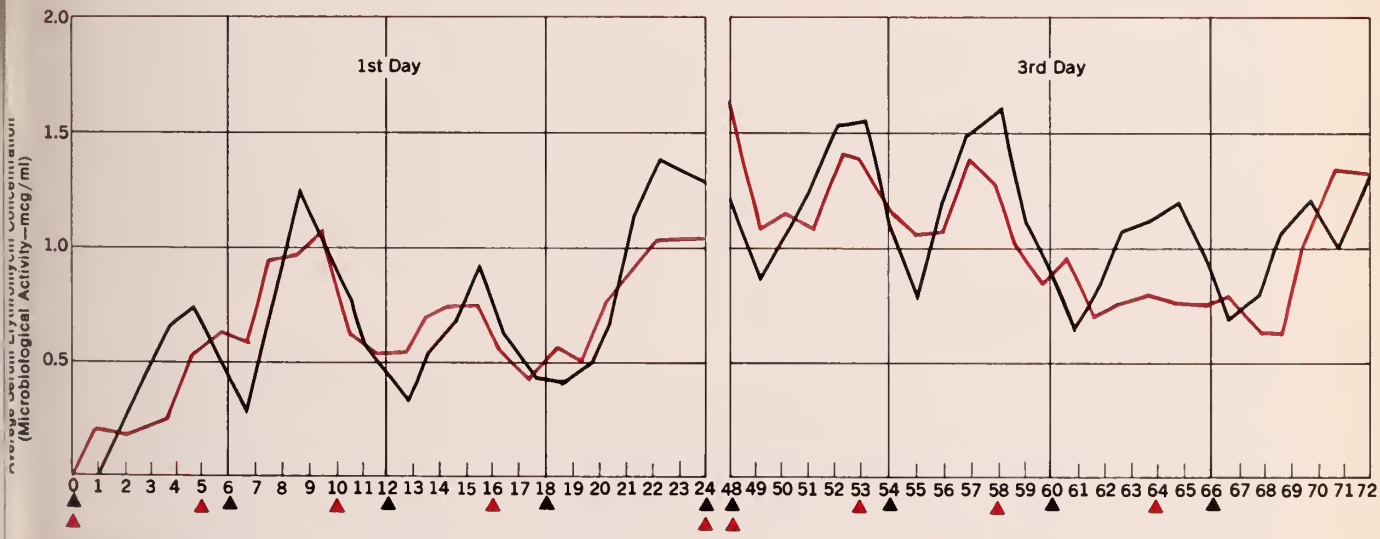

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MED 8-7-S

Prominent Medicine Convenes at Lumberton, 1887

Alfred R. Henderson, M.D.
Washington, D.C.*

It was an unusually cold night on February 7, 1887, when Mary Catherine Anderson, age 17, and "handsome and of good reputation," wrapped her shawl about her and, obviously anxious and disturbed, left the farmhouse of Stratton Colkett.[1] She was employed by the Colketts as a domestic, after she left the home of her parents, not far away on the Smithville Road, because of family problems. Some of these problems, at least, involved an unapproved love affair with her cousin, Barclay Peake, who was not as well liked in the area as Mary. Peake drank too much and was quite unproductive for a young man of 20. When she did not return that night, the Colketts assumed that she had gone to the home of her parents.

Early the next morning Mary's prostrate body, live but stiff from the cold, was found near the Colketts' in a gulley, on the Mt. Holly to Ayerstown Road at Newbold's Corners.† There was a bullet wound in her head, and not far away a pistol, recognized as belonging to Barclay Peake was found. She was brought into the Colkett home and then to her father's cottage. In this shabby backwoods setting there began a series of events that would soon bring in attendance upon this humble patient a gathering of medical competence generally unavailable in any one spot in the entire nation. It resembled, in many details, the group which had been brought in to attend the President of the United States under similar surgical circumstances shortly before this.

By February 10th she had responded sufficiently to speak audibly and she told her mother and sister how Peake had attempted to assault her and, when she resisted him, he had shot her. The newspapers that day reported her physician, Dr. Richard E. Brown of Mt. Holly, as being encouraged by the apparent return of strength.[2] Thereafter, bulletins following the case were published in all of the West New Jersey papers, and occasionally in New York and Pennsylvania papers as well.

By February 13th the possibility of her recovery so encouraged Dr. Brown that he summoned other local doctors — Drs. Parry, Barrington, and Parsons of Mt. Holly and Dr. Gauntt of Burlington — in consultation. She was not removed to the hospital at Mt. Holly, a rented eight-room house situated across the street from the site of present Burlington County Memorial Hospital (which was built in the early 1920's).

On that very day Dr. William Pancoast, noted Professor of Anatomy and Surgery at the Medico-Chirurgical College in Philadelphia, was summoned in consultation. After taking over an hour to persuade her mother to grant permission to explore the wound, located one and one-half inches above and anterior to the left ear, he removed several bone fragments, extended the skin exposure and explored the wound, but could not locate the bullet. Dr. Pancoast's statement to the press indicated that removal of the bullet was impossible without knowing its exact location, and that this was absolutely necessary to do to predict the outcome.[3]

By February 17th her condition had become more uncertain. There were longer periods of somnolence and those words she occasionally uttered were garbled. On February 20th Dr. Pancoast called in the renowned New York neurologist, Dr. Edward Spitzka, who after his examination stated to the press that this was indeed a remarkable case in that she had survived so long with a wound of this nature. Casually, he likened this chronicity to the case of the late

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†Once a sparsely inhabited area, now the entrance to a NIKE missile base.

President Garfield.[4] Upon his return to New York, Spitzka requested Dr. John H. Girdner, prominent New York surgeon, who had just then acquired fame in locating metallic foreign bodies with his "telephonic probe," to attempt to locate the bullet in Mary Anderson's head.[5]

On February 22nd four notable physicians, with the addition of all the local doctors who could fit into the small cottage, enacted a scene that any world-famous medical center would have envied. Two prominent surgeons, Pancoast and Girdner, and two prominent neurologists, Spitzka and Spiller, witnessed the attempt, using the telephonic probe, to locate the bullet. Pancoast manipulated the exploring probe and Girdner operated the dynamo and listened through the earphones for the telltale "click" that would signify the striking of metal by the probe. This was carried out under ether anesthesia. After a short time, and without apparent success, the procedure had to be stopped because of a deterioration in the girl's condition.[6]

On February 28th the newspapers reported marked improvement in her condition. The extreme restlessness and frequent screams were considered signs of increasing sensitivity to pain; in addition, her slower pulse and diminished respirations were considered favorable signs — although today they might be thought otherwise. "Always of a nervous disposition when a child," reported Dr. Brown, "the symptoms now asserting themselves are not regarded with particular fear."[7]

Mary Anderson died on March 12, 1887, thirty-three days after being shot. Dr. Pancoast was summoned from Philadelphia to assist Coroner Carr in his postmortem examination. On March 14th the *Daily State Gazette* in Trenton stated, "This has been a remarkable case from the surgical point of view. The girl, although very poor, has had the very best surgical talent in the country at her disposal including besides the local and Philadelphia physicians, such eminent specialists as Drs. Spitzka and Girdner of New York."[8]

Barclay Peake was tried in the old Mt. Holly Court House, and found guilty of murder on July 11, 1887. The *Mount Holly Herald* reported, "The sentence of death was passed upon Barclay Peake on Saturday by Judge Parker . . . in the presence of the biggest crowd ever assembled within the walls of the old Court House." An attempt at an appeal was filed on the basis of Dr. Pancoast's alleged remarks made in the presence of the jury assembled at the railroad station, but this was dismissed. Another suggestion in the appeal was that Dr. Girdner bring his induction balance or telephonic probe, already famous enough to the profession, to prove its worth to the jurors. This notion was also dismissed as being immaterial to the question of Peake's guilt.[9] Peake was sentenced to be hanged on September 1, 1887 at two.

There is another aspect to this event of medical historical interest other than that of the mere reporting of the incident and the gathering of renowned physicians. This involves the history of a surgical apparatus, as well as the anomalous character of one of the consultants. The story had its beginning in July, 1881.

When they were unable to locate the bullet or its course in the body of President Garfield, the physicians attending him at the White House were in a dilemma as to how to proceed. (Dr. Hamilton had then stated that if the patient had been a New York "tough" instead of the President, he would have been hauled to Bellevue Hospital, immediately operated upon, and very likely would have survived.[10]) The President also lingered on for twelve weeks with suppurative back and abdominal wounds, which were made worse by his obesity. With x-rays unavailable in 1881 to locate the bullet, no attempt at major surgery was made.

Because of his previous experiences with the induction balance and its potential use in locating metallic foreign bodies, Alexander Graham Bell was called back to Washington from a Boston vacation by Simon Newcomb and Dr. Willard Bliss, who were in charge of the President's case. Bell was asked to develop an electrical apparatus to locate the bullet.[11] His apparatus, which employed the induction balance and a telephone receiver, would cause a sound to be heard over the telephone receiver when the electromagnetic field was interrupted by the presence of metal.

On July 26, 1881, Bell and his assistant, Sumner

Tainter, made their first unsuccessful attempt to locate the bullet in Garfield. Within a few days, a second unsuccessful attempt was made.[12]

It was not until the President had died that Bell learned of the metal springs within the horsehair mattress which caused his instrument to fail. He had been promised by those attending the President that the bed was free from metal.

Despite Bell's ill-fated White House experience, at least one surgeon who attended Garfield thought that the instrument had possibilities. Dr. Frank Hamilton of New York, former military surgeon and then Professor of Surgery at Bellevue Hospital Medical College, requested Bell to make another demonstration of the usefulness of the induction balance upon some of his patients.[13] One of them, a Colonel Clayton had a musket ball lodged in his body since the Civil War.

A meeting was arranged for October 7, 1881 in Dr. Hamilton's New York office for Bell's demonstration. Ironically, with minimum effort, the missile in Colonel Clayton's flesh was readily located. Even more ironically, one might say, Dr. Hamilton's assistant, Dr. John Girdner, was present at the gathering.

After this successful demonstration, all but one appeared to have forgotten the apparatus. On December 16, 1881, Dr. Girdner, then in private practice in New York City, wrote to Bell:

" . . . You remember some years ago of giving an exhibition of your electrical apparatus at the house of the late Dr. F. H. Hamilton, myself being present. I am now engaged in teaching surgery in the New York Post Graduate Medical College and Hospital and am very anxious to exhibit this apparatus to the class. I therefore take the liberty of asking if you will kindly inform me how I can become possessed of the apparatus with necessary directions, etc. for a proper demonstration of it . . ."[14]

Bell, with his characteristic generosity, sent Girdner the apparatus. In January, 1887 the latter began to experiment with the balance and probe on all persons he could find who had bullets or other metal lodged in their bodies. He also began to use the apparatus on his surgical service and, as a result of his successes, quickly earned a favorable reputation among his colleagues.

On February 3, 1887, just four days before Mary Anderson was shot, Girdner gave a demonstration before a meeting at the New York Academy of Medicine.[15] Additional notoriety was picked up the day before this when he located a .22 caliber bullet which had tunneled an upward course in the obese arm of a patient of Dr. Herman Schiff, who was a prominent member of the staff of the College of Physicians and Surgeons at Columbia University. In his demonstration before the New York Academy of Medicine, Girdner mentioned Bell's apparatus as though it were something entirely different from the one before him. He spoke of it only briefly as the instrument which had failed in the case of Garfield. He continued, "Now, however, we have before us a perfected apparatus, one which will detect and locate any piece of metal, wherever situated in the human body." He then proceeded to demonstrate the probe on a piece of meat in which a bullet had been embedded, located a quarter in someone's pocket, and a bullet located in a Civil War veteran's chest.[16]

The demonstration proved astonishing to a profession which had long been on the search for a dependable instrument with which to locate foreign bodies. Many had been devised, none had passed the tests of time and utility. The *New York Herald*, February 4, 1887, reported sensationally on Girdner's demonstration before the Academy,[17] and in short order, the apparatus was referred to as "Girdner's Probe." On February 20, 1887, the day before he was requested to see Mary Anderson in Lumberton Township, Girdner made the syndicated headlines again, when, using the new local anesthetic cocaine, he located a bullet in Patrick McGannon's hip. McGannon, while under the influence of liquor, had flourished a pistol in a bar-room and accidently pulled the trigger. He was taken to Bellevue Hospital where the newspapers reported " . . . his case would have been of no particular interest . . . had it not been utilized to test a new surgical contrivence." And, the columnist went on, " . . . Dr. John Girdner, who operated the instrument said that its use

would have saved Garfield's life, in all probability."[18]

There is no written evidence that Bell noticed this event, syndicated in the *Washington Post*, but I did find the clipping tucked away in one of his notebooks.

Girdner published a number of articles on *his* telephonic probe over a period of fifteen years and to all appearances convinced himself that the invention was actually the product of his own creativeness. Bell had long since been left out of the picture when, in the 1890's, the instrument was patented, manufactured, advertised, and sold as the "Girdner Telephonic Probe."[19]

Numerous accounts, after 1887, referred to the "telephonic probe" as Girdner's instrument. W.W. Keen wrote, "The telephonic probe of Girdner is an ingenious application of the telephone . . ."[20] In a critical essay on "Girdner's Instrument," H. M. Wells, a Navy surgeon wrote, "I desire to call the attention of the medical profession to a telephonic bullet probe . . . In experiments with Dr. J. H. Girdner's telephonic probe, I had great difficulty in hearing the ticking . . ."[21] As late as 1914, John C. DaCosta wrote, "The bullet may be located by Girdner's probe."[22]

The only communication noted between Bell and Girdner after March 1887, occurred when widespread publicity was again given the Anderson case when Peake's sentence was reviewed by the Supreme Court. After lengthy appeals and legal juggling, and, after prosecutor Judge Parker's death, Peake's death penalty was modified and he was removed from the Mt. Holly jail to Trenton to serve a 20-year sentence.[23] The appeal was based on the technical failure of the court to publish the names of all 60 potential jurors; only the names of the twelve jurors chosen were published. It was also alleged that the accusation of Peake was made by a critically ill girl and not in the presence of proper witnesses.

Bell wrote to Girdner concerning the outcome of the use of the probe in the Anderson case. Girdner answered on November 22, 1887, that he had readily located the bullet: "I heard the 'click' in the telephone beyond all question of doubt . . . with Pancoast probing while I listened he would call out 'I feel it' — when at the same instant I called out 'I hear it' — but I am placed in a peculiar position (and for Heaven's sake never breathe what I am about to tell you . . . not even to Mrs. Bell . . . and burn this letter). The feeling among the friends of the girl, and especially among the defence for the young man who is supposed to have shot her, ran so high against the (local) surgeons that it never would have done to tell the press that the bullet had been located by the balance and could have been removed with safety three weeks earlier . . . I regret that I ever had anything to do with the case. The fact remains, the balance and probe did their work to perfection and had they been used three weeks earlier that girl in all probability would today be alive and on the road to recovery . . ."[24]

That same year, 1887, invitations were sent to Bell from the Section on Military Surgery of the Ninth International Medical Congress to exhibit the instruments used on Garfield, but they were ignored. He remained characteristically quiet until thirty-five years later. In the meantime, the "Girdner Probe" became widely used, as slightly modified and renamed.

In 1916 Bell received a letter and a newspaper clipping from an old friend, Edmund Fay, who was then at Nantucket, Massachusetts. In reading the headline caption — *Invention of a Unique Device for the Location of Metallic Foreign Bodies Reported from Europe* — Fay recalled the earlier work of Bell in the Garfield case and thought it would be of some interest to the old scientist. Bell's reply, dated September 1, 1916, brings to a fitting end the story of the probe. But more than that, it reveals the true Bell, the immeasurable, little-understood man who merits more remembrance than as the man who simply invented the telephone.

"Dear Fay", he wrote, "Many thanks for your note of August 22, with the clipping from the *New York Times*. It *is* my invention of 35 years ago — all this happened so long ago that people have forgotten that I had anything to do with the matter.

"As I could not very well introduce the invention to the medical-surgical profession myself, I gave the telephone probe and explained its mode of operation to Dr. Girdner of

New York by whom it was introduced to the notice of the surgical world with the consequence that it is now well known in America as "Girdner's Probe," and seems fated to be known in England as "Finley's Probe" or "Corti's Probe."

"However, I don't care who gets the credit first, so long as the public gets the benefit of it, and my publications of 1881 speak for themselves without a word from me."[25]

References

1. *Daily State Gazette* (Trenton, N.J.), February 11, 1887, Reported Mary Anderson as " . . . a handsome young woman, about 17 years of age, enjoying a good reputation . . ."

2. *Mount Holly Herald,* February 11, 1887.

3. *Daily State Gazette* (Trenton, N.J.), February 14, 1887.

4. *Daily State Gazette* (Trenton, N.J.), February 21, 1887.

5. Letter: John Girdner to Alexander Graham Bell, New York, February 21, 1887. In part: "I have signified my willingness to the surgeons in attendance on Mary Anderson of Mt. Holly, N.J. to attempt to locate the bullet in her head — you are doubtless familiar with her case from the newspapers." In the Bell Archives, National Geographic Society, Washington, D.C.

6. *Mount Holly Herald,* February 23, 1887.

7. *Daily State Gazette* (Trenton, N.J.) February 28, 1887.

8. *Daily State Gazette* (Trenton, N.J.), March 14, 1887.

9. *Mount Holly Herald,* July 11, 1887.

10. John H. Girdner: The death of President Garfield. *Munsey's Magazine* 26:546-547, 1901-1902.

11. O. Temkin and J. Koudelka: Simon Newcomb and the location of President Garfield's bullet. *Bulletin of the History of Medicine* 24:393-397, 1950.

12. Alexander Graham Bell: *Upon the Electrical Experiments to Determine the Location of the Bullet in the Body of the Late President.* Washington, D. C., Gibson Brothers, 1882. Pp 2-3.

13. Letter: Sumner Tainter to A. G. Bell, August 10, 1881: "Dr. Hamilton wishes to know if you will be willing to explore some of his patients in New York who have bullets that need extracting." In Bell Archives, National Geographic Society, Washington, D.C.

14. Letter: John Girdner to A.G. Bell, December 16, 1886.

15. John Girdner: The telephonic bullet probe. *Medical Record* 33:117-118, 1888.

16. John H. Girdner: On detecting and locating metallic masses in the human body by the induction balance and the telephonic probe. *Medical Record* 31:193, 1887.

17. *New York Herald,* February 4, 1887.

18. *The Washington Post,* February 20, 1887. (By-line dated February 19.)

19. The "Girdner Telephonic Probe," patented and offered for sale in the A.S. Aloe *Surgical Catalogue,* 6th edition, 1891, p. 102.

20. W.W. Keen and J. William White: *An American Textbook of Surgery,* 4th Edition. Philadelphia, Saunders, 1903. P. 138.

21. H.M. Wells: Telephone Probe and Forceps. *Medical Record* 47:30, 1895.

22. John C. DaCosta: *Modern Surgery, General and Operative,* 7th Edition. Philadelphia, Saunders, 1914. P. 281.

23. *Record Book,* Mount Holly Prison, June 13, 1888, "Barclay Peake discharged to State Prison at Trenton." *The Mt. Holly Herald,* August 27, 1887 published Peake's attorney's writ of error and appeal to the Supreme Court. The same paper on November 5, 1887 reported the Supreme Court's decision.

24. Letter: J. H. Girdner to A. G. Bell, November 22, 1887. In the Bell Archives, National Geographic Society, Washington, D.C.

25. Letter: A. G. Bell to Edmund Fay, September 1, 1916. In Bell Archives, National Geographic Society, Washington, D. C.

Office of Medical Services,
Department of State, Washington, D.C.

A 19th Century Odyssey*

Dr. Charles Conrad Abbott's Search for Primitive Man in New Jersey

Lucy L. Aiello, M.T./Lansdale, Pa.

The shape of the land where man ekes out his life, the climatic conditions that control food supply and survival, the natural features that protect and shelter man influence and shape man's destiny. Geology is material, processes, and time; while geography is man, land, and climate. Can one be separated from the other? New Jersey historian John Cunningham neatly commented that "Geology becomes geography at that point where it begins to rule men's lives."[1] If ever geology and geography combined to rule one man's life it was epitomized by a 19th century odyssey, the search for primitive man in New Jersey.

In the 19th century, scientists established that the development of modern man took place mainly in Europe and Africa during the warm intervals of the four Ice Ages. The action of the glaciers affected land masses by raising and depressing the terrain. During intervals when the ice melted, pressure on the land mass was reduced and the land rose; intercontinental land bridges were formed. A familiar example is the Bering Strait, once a strip of land connecting Asia and Alaska. Migrant bands of primitive hunters crossed this bridge and moved along the Mackenzie River Valley. They spread out across the Plains and around the face of the Wisconsin glacial lobes (the most recent glacier) into the eastern part of the United States. Did primitive man wander into the Delaware Valley on his quest for food and water?

In 1872, Dr. Charles Conrad Abbott published in the *American Naturalist* an article entitled "Stone Age in New Jersey."[2] He described how he had extracted numerous stone artifacts from the locality of the Delaware Valley and surrounding territory, which, in his words, "when carefully compared, we must come to one of two conclusions: either that there were many execrable workmen among the toolmen, or the age of the crude implements *exceeds* that of the finely wrought relics." He diagnosed the series of stone relics ranging from poor — meaning primitive, to good, meaning elaborate — as a condition ranging from Stone Age *(paleolithic)* to recent *(neolithic)* age.

Abbott's observations touched off a 19th century major scientific controversy over the antiquity of man in New Jersey. Though the battle raged for over 40 years, Abbott remained firm. So tenaciously did he cling to his belief that he had discovered evidence of paleolithic man on the North American continent that he had words to this effect inscribed in bronze on his tombstone (much to the chagrin of his detractors!).

Nearly four generations of scientists have tried to resolve the issue of man's earliest habitation in this state, and the authenticity of the relics excavated by the celebrated New Jersey archaeologist. In light of recent knowledge, an occasional cautious plea has been raised in support of Dr. Abbott's claims. Carbon dating of the relics has not been done, and this deficit tends to foster a nagging fascination with the puzzle: *Were* the Lenni Lenape of Central New Jersey the "original people" of their legends, or were they second comers to the region? This brief itinerary of Abbott's odyssey may serve to stimulate additional curiosity and wonder.

To appreciate the impetus for Dr. Abbott's journey, it is necessary to take a backward step into New Jersey's Ice Age.

There have been four recorded Ice Ages. Most of the glacial period when it occurred touched the New World, and three of the glaciers almost certainly reached into New Jersey. The most recent one was the Wisconsin glacier. The boundary line of the glaciated region lapped irregularly into parts of Perth Amboy, around through Raritan, Plainfield, Chatham, Morris,

*This presentation was made before the New Jersey Society of Medical Historians, March 31, 1973, Rutgers University, New Brunswick.

and Hanover to Rockaway, thence in a southwesterly direction to Belvidere on the Delaware River.[3] The glacier depressed the land, and held most of the waters from the rivers and streams in an icy prison. Vegetation was extremely sparse or non-existent. The continental shelf projected New Jersey, New York, and Delaware shores fifty or more miles farther to the east. Canyons dissected the emerged shore front and disgorged the glacial meltwaters and surface drainage of the Hudson and Delaware systems far to sea. Two miles below present day Trenton in Hamilton Township, the Delaware cut a swath from the terrace. Thousands of years ahead in history, the bluff would be known throughout the world as the Abbott Farm site.

As the ice began to melt and temperatures moderated, shrubs and grasses began to take root and flourish. Animals which had fled to more hospitable climates slowly began to follow the vegetation line down into the Delaware Valley. Were there human predators who stalked these beasts and dropped their crude stone hunting weapons in the icy gravel bed of the Delaware River? The splash of the stone echoed throughout the centuries and was eventually heard by a Trenton physician who had abandoned medicine for a career in natural science. He is best remembered for his signal achievements in the archaeology of New Jersey.

A native of Trenton, Charles Conrad Abbott was born in 1843 in a house on Livingston Street, a stone's throw away from the Delaware River. The Abbott family were Quakers, descendants of Yorkshiremen who had emigrated to the Burlington area in 1684.

After having completed his education in local schools, Abbott began a medical apprenticeship with Dr. James Beakes Coleman, a Trenton physician. Though the young apprentice would have preferred a career in natural science, none of the American colleges in the early 1860s offered a degree course in the subject. Upon graduation from the University of Pennsylvania Medical School in 1865, Dr. Abbott made an abortive attempt to practice medicine in Trenton, but after an unfortunate professional experience he decided to forego medicine and devote the rest of his life to natural science.

His base of operations was the homestead farm, a lush 110 acre plot situated on the bluff of the Delaware, two miles southeast of Trenton. Because of the irregular terrain, only part of the land was cultivated for money crops. The rest of the acreage consisted of meadows, the bluff, and hillocks. Enormous trees dotted the landscape; especially notable were the three huge beech trees, said to be remnants of the primeval forest, and from which the farm derived its name "Three Beeches." The land was occupied once by the Lenni Lenape; part of an Indian trail leading from Philadelphia to New York cut through the farm. Small wonder that Dr. Abbott soon earned a well-deserved reputation as a naturalist and authority on the Lenape. He was a prolific writer on both subjects, as his bibliography which lists over 200 articles on natural science, the Indians, and the geology of the region attests. Much of the latter derived from his participation in various state and national geological surveys.[4]

In 1876 an expanded, illustrated version of *Stone Age in New Jersey* appeared in the *Smithsonian Reports*. Abbott commented here that "The theory of the gradual progress of mankind is demonstrated, as in Europe, in the condition and general position of the stone implements found in New Jersey, although the older Stone Age of the American race or races does not date back as far into prehistoric ages as is probable in other continents."[5]

Again, Abbott's claim for a great antiquity for man in New Jersey, rested on crude argillite artifacts which were usually, though not always, present in the substrata of the soil far below the horizon of the historic Indian, or *in situ* in the glacial age gravels of the river bluff.

In September of that year, Frederick W. Putnam, curator of the Peabody Museum of American Archaeology and Ethnology at Harvard University visited the river bluff at Trenton and found specimens *in situ*. At Putnam's request, Abbott continued with his examinations of the gravels, acting under an appropriation from the Peabody. Trowel and scraper in hand, he traveled the length and breadth of the Delaware, Schuylkill, and Susquehanna Valleys. In total, he amassed a collection of over 30,000

relics, representing man's ascent from aboriginal to historic. In recognition of his excellent studies, room 32 of the Peabody Museum, which houses the Abbott collection, was named the Abbott Room.

In his most famous book on the subject, *Primitive Industry,* published in 1881, Abbott presented his carefully delineated and illustrated case for primitive man. Though gaining additional supporters, Abbott continued to fend off his detractors.

In 1888, speaking before the American Association for the Advancement of Science in Cleveland, Abbott presented his case before his scientific peers. Summarizing the results of his labors, he hammered out these points:

(1) The antiquity of man must be studied from a *geological* standpoint; that is, age-relation of discovered evidence to the age of the earth strata in which the artifacts are found.

(2) Paleolithic implements as a rule — but not necessarily always — are found in Ice Age deposits (glacial age gravel) and are of a comparable age, geologically speaking.

(3) The paleolithic implements found in the Trenton gravels were of argillite, a type of stone unusual in the area. The implements had probably been manufactured at a distant quarry and brought to the Delaware Valley by primitive hunters.

(4) Independent geologists agreed with Abbott that the Trenton gravels were so ancient that traces of man or animals found in them were significant. Equally important, archaeological investigators working in neighboring states had discovered traces of primitive weapons, lending additional support to Abbott's argument for the presence of primitive man in New Jersey.[6]

A year later, in 1889, Dr. Abbott was appointed first curator of the University of Pensylvania Museum's Department of North American Archaeology. A co-worker, Henry Mercer, was responsible for delivering for all intents and purposes the death blow to ancient man in New Jersey.

The case for the paleoliths rested on the nature of so-called "turtlebacks," descriptively shaped chunks of stone with a characteristic hump in the center, resembling a turtle shell. At Gaddis Run, Pennsylvania, Mercer found an argillite quarry of relatively recent period where "turtlebacks" were common. His assessments were underscored by a visit he made to the Somme Valley, France where true paleolithic artifacts had been unearthed. Comparing the French specimens with the Trenton gravel variety, Mercer concluded: "The Trenton specimens, although resembling ruder and less specialized types, never *duplicate* the specialized forms." This was an important factor in settling negatively the question of Paleolithic Man in New Jersey.[7]

In 1912, in his declining years, Abbott wrote his swan song book to archaeology, *Ten Years' Diggings in Lenape Land* in which he continued to insist on citizenry for primitive man. He sent an inscribed copy to Mercer. In a bit of doggerel, twitting Mercer's report, Abbott concluded the verse thus: "There's no need to more unravel; I've found the old cuss in the gravel!"[8]

At the turn of the century Professor Putnam and Dr. E.E. Hyde of the American Museum of Natural History in New York proposed that the Trenton gravels be thoroughly re-examined in a hopeful effort to settle the dispute. Ernest Volk, a local archaeologist who had known Abbott's work well and had occasionally worked for both Putnam and Hyde was appointed field investigator. At the time Trenton was undergoing a building boom. Construction crews opened up large trenches in various parts of the city. In 1902 not long after beginning his investigations, Volk found a bone in a sandpit on Hancock Street in South Trenton. The bone was identified as part of the scapula of a musk-ox. Several months later he found a fragment of a human thigh bone and parietal bone. Volk concluded these were evidence of the "Dweller of the Yellow Drift," a culture that preceded the historic Indian. These were the most important of Volk's finds in his 22 years of labor.[9]

By far the most serious opposition to Abbott's claims came from William Henry Holmes, chief of the Bureau of American Ethnology at the Smithsonian Institution. Whatever the reasons for their personal animosity, it is clear that Holmes was the leader of an influential cadre of scientists opposing Abbott's evidence of primitive man. Once, at the latter's insistence, Holmes sent one of his staff to visit the archaeological sites at Trenton. The deputy returned to Washington a month later with a negative report, thus further strengthening

Holmes' skepticism. Later, when Holmes appointed Ales Hrdlicka Chief of the Division of Physical Anthropology, Hrdlicka took up the cudgels against the radicals. Though Abbott supplied additional evidence in the form of obviously ancient human skeletal remains, and insisted that the test of age lay in the geological conditions surrounding the discoveries, Hrdlicka refused to be swayed. The controversy dragged on into the 20th century.[10]

Charles Conrad Abbott died in July, 1919. He is buried in Trenton's Riverview Cemetery overlooking the site of the Delaware River bluff which was the starting point of his life-long adventures into time.

Did Dr. Abbott discover remains of aboriginal man? The question continued to nag the minds of scientists. In 1939, Dr. Dorothy Cross, an archaeologist employed by the New Jersey State Museum at Trenton, began to re-excavate the Abbott Farm site, under a grant of the Federal Works Project. Her conclusions, published in the two volume *Archaeology of New Jersey,* were that the earliest inhabitants of the region were the Paleo-Indians who resided here about 8000 years ago. This remained the accepted conclusion until very recently.

Herbert C. Kraft, an archaeologist at the Seton Hall University stated that Dr. Abbott was right, but for the wrong reasons. Quoting Kraft: "It is now firmly established that man has a venerable antiquity in New Jersey and the Northeast generally, not quite as ancient as Abbott believed, but of a very respectable age nevertheless. The Trenton Gravel implements belong to the later Archaic Period."[11]

Somewhere in the "Happy Hunting Grounds" of archaeologists, the soul of Dr. Abbott must be resting from his tireless journey. Before he died, he summed up the philosophy of his quest:

"All the museums and all the libraries in the world are not as eloquent of the antiquity of man as a single battered pebble drawn from the face of a compacted gravelly bluff . . . . . Out in the country, under a clear sky in the searching light of an unclouded sun, where the river flows and field and forest are ready to tell their stories, there even the neglected artifact that frost and fire of centuries have left unscathed, has a tale to unfold that carries him who lends a listening ear, back millenium after millenium, until the world as it was, even before the Ice Age, appears in no uncertain shape."[12]

Bibliography

1. Cunningham John T: *New Jersey: America's Main Road,* Garden City, New York, Doubleday, 1966. P 12.

2. Abbott C C: The Stone Age In New Jersey. *American Naturalist* (Salem Press) 6:3-4, 1872.

3. Kummel, H B: *The Geology of New Jersey,* Bulletin #50. Trenton, New Jersey, 1940. Pp 160-163.

4. Aiello Lucy: A fire in the meadow. *CIBA Journal,* 46:31-35, 1968.

5. Abbott C C: The Stone Age In New Jersey. In the Annual Report of the Board of Regents, Smithsonian Institution, Washington, D.C., 1876. Pp 246-380.

6. Abbott C C: Evidence of the antiquity of man in eastern North America. *Proc Amer Assn Adv Sci* 37:24, 1888.

7. Mason J A: Henry Chapman Mercer: 1859-1930. *Pennsylvania Archaeological Bull* 26:3-4, 1956.

8. Ibid.

9. Volk Ernest: *The Archaeology of the Delaware Valley,* Papers of the Peabody Museum of American Archaeology and Ethnology, vol. V. Cambridge, Massachusetts, Harvard University Press, 1911.

10. Stewart T D: The development of the concept of morphological dating in connection with early man in America. *Southwest J Anthropology* 5:30, 1949.

11. Kraft H C: The Indians of New Jersey in prehistory. To be published in *A Delaware Indian Symposium.* Pennsylvania History and Museum Committee, Anthropology Series no. 4.

12. Abbott C C: *Ten Years' Diggings in Lenape Land.* Trenton, New Jersey, MacCrellish and Quigley, 1912. Pp 177-182.

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State Responsibility for Care of the Mentally Ill*

Henry A. Davidson, M.D.†

Until recently the treatment of disease was always thought of as the individual's own responsibility. The idea that the community, whether city, county or state, had any such responsibility was generally considered socialistic with one exception: care of the mentally ill. From the earliest times, certainly in the United States, the individual states and other governmental subdivisions had assumed varying degrees of responsibility for care of the emotionally ill.

Why should this be so? The principal reason was that the concept of "emotional illness" prior to the 20th century, was equated with that of "insanity." Furthermore, the insane were visualized as dangerous, violent, suicidal, or having a tendency to avoid taking decent care of themselves. Indeed, originally, insanity was a problem for prisons . . . not that society wanted to be cruel to the mentally sick, but jails were the only secure places in which one could house the violent or suicidal.

In 1887, S.O. Garrison, a clergyman in Millville, New Jersey, used his home to receive and care for a few feeble-minded children. The same year, the legislature voted funds to establish a home and school in nearby Vineland. Dr. Edward R. Johnstone was brought in as assistant superintendent of that institution in 1900, and under this doctor's dynamic leadership, Vineland actually acquired world-wide fame. The Binet-Simon test had its first practical English translation under Dr. Johnstone's auspices. Today, we have the Johnstone Center at Bordentown, named for this pioneer.

Epilepsy which is not now considered a primary state responsibility, was thought by the public to be a species of insanity or feeble-mindedness. In 1898, the State Village at Skillman was established for epileptics, but by 1953 it had become apparent that there was no need for a special institution for epileptics so the name was changed to the present title, "New Jersey Neuropsychiatric Institute."

In 1837, Dr. Lyndon A. Smith, President of The Medical Society of New Jersey, chose as the subject of his inaugural address, "Responsibility for the Care of the Insane." He urged the legislature to establish a state-owned lunatic asylum, with the result that $500 was appropriated to make a study of the problem. A committee was appointed which urged the erection of such a building, but it was not dedicated until 1848. The catalyst in this drive was that extraordinary woman, Dorothea Lynde Dix, who went through the nation pleading for better care of the mentally ill and inspired the construction of a half dozen pioneer mental hospitals. Ms. Dix who always called Trenton her "first born child," returned to the Trenton State Hospital as a beloved and honored guest toward the end of her life and died there in 1887 at the age of 85.

The State Hospital at Trenton, then the State Lunatic Asylum, was the first publicly owned mental institution in New Jersey. Throughout most of the 19th century mental hospitals were usually built in the capital cities of the various states. The movement to erect them in isolated or rural areas was a 20th century development which curiously enough, was reversed in recent times when the Veterans Administration started building psychiatric hospitals near medical schools.

Until 1918, New Jersey's state-operated institutions for the defective, the epileptic, and the

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†Deceased. Dr. Davidson was formerly superintendent of the largest facility in New Jersey for the treatment of mental illness. The Essex County Hospital at Cedar Grove (now renamed the Essex County Hospital Center). When this paper was read, he was Editor of *The Journal*, MSNJ.

psychotic were each managed by separate boards. In that year while Walter Edge was Governor, the State Department of Institutions and Agencies was created to weave together all the New Jersey medical, welfare, and penal institutions. Most states have separate departments of mental health or mental hygiene with psychiatrists as commissioners, but New Jersey has clung to the system of bringing the mentally ill and the criminals together in one State Department. The Medical Society of New Jersey has for some years urged a separate department of mental health with a psychiatrist as commissioner. Since its inception, the Department of Institutions and Agencies has had six commissioners — a social worker, a psychologist, two penologists, a personnel man and a lawyer — but has never had a physician as commissioner, even though the Department had responsibility for several hospitals.

One reason for the state assuming responsibility for the mentally ill was the myth that such persons were potentially violent. Another was the chronicity of mental illness which might necessitate a longer term of hospitalization. In such an instance the average patient could not afford the costs of a general community hospital. This, however, is another myth for Blue Cross experience has shown that a large number of psychiatric patients can be cared for during the acute phase of their mental illness within the 21-day maximum provided by Blue Cross.

Until comparatively recent times separate mental hospitals were seen as the only place for the care of the emotionally ill. As a private practice field, psychiatry did not begin to develop until the 1920's and general hospitals did not put out the welcome signs for the mentally ill until just before World War II. In his all-too-brief tenure of office, President John F. Kennedy urged the development of community mental health centers, offering federal assistance in the building and staffing of such units. The program for setting up these centers, with emphasis on keeping the patient in his own community, started off with a bang in the mid-1960's, but now seems to have run out of much of its steam. Mental health units in general hospitals or in outpatient settings run into the problem that a proportion of emotionally sick people are disoriented, disturbed, deteriorated, aggressive, mentally retarded or antisocial. Generally, outpatient installations have no wish to be saddled with any substantial number of patients in those categories.

This has led to a curious problem in the operation of community mental health centers. If such centers were to accept as in-patients seniles who weren't getting any younger, schizophrenics who were already deteriorating, or mental defectives whose low intelligences were already fixed, there was danger that these institutions would soon silt up with patients who could not be removed. Thus, the institution would have no place for new patients since the earlier ones would become permanent guests. If, on the other hand, they rejected such patients outright, they would be charged with seeking to accept only the easiest cases, the ones which needed help least. Since State and Federal government had a stake in the construction and staffing of these installations, this provided a real test of government leadership.

One of the characteristics of mid-century psychiatry has been the emphasis on community involvement, which is bound to stimulate government interest and support in terms of funding at least. An example of changing governmental involvement can be seen in laws relating to the commitment of patients. Since committing a patient against his will always meant loss of the patient's civil liberties, there had to be a point where the commitment process became legal, rather than medical. One cannot forcibly detain and restrain a patient for any length of time without legal sanction. For a century, however, the law was content to rely entirely on the opinions of the doctors. When a patient resisted commitment or demanded release, the law would say that this applicant was "out of his mind" so he need not be taken seriously. Within my own professional lifetime, this attitude has made a 180 degree turn-around. Courts are now concerned about this and place on hospitals the burden of showing that involuntary hospitalization is necessary. The courts are beginning to demand that hospitals spell out to their satisfaction exactly what they are doing by the way of treatment. The community as well has recently shown a sensitivity to the problem of the in-

voluntary incarceration of the mentally ill. All this is quite a change from the time, only a few decades ago, when the patient was dismissed as a State responsibility and no agency of the Government intervened on his behalf.

One of the developments which has an interesting New Jersey angle is in the field of child guidance. During the 19th century and earlier, the predominant philosophy was "spare the rod and spoil the child." This was an era of cruel orphanages and degradation of retarded and disturbed children. The problem was considered one for the parents or parent surrogates, and any State intervention was thought of as interfering with the prerogatives of parents. However, with the dawn of the 20th century came the feeling that guidance agencies were needed for these children. Prior to World War I, these guidance installations were privately funded, mostly by foundations. The first tax-supported child guidance facility in the country was established right here in New Jersey under the leadership of Dr. James Stuart Plant. The Essex County Juvenile Clinic which was established primarily as a service to the Juvenile Court, is still operating as the Essex County Guidance Center. It remains the first of a long line of American guidance clinics established under city, county or state auspices. Although there is still some grumbling about the state assuming what is generally thought of as a parental responsibility, the idea of State funding for guidance clinics is generally accepted now. There has been, perhaps, a slight backlash in the direction of the old idea that children should be disciplined more firmly and less permissively, but in general there is acceptance of the thesis that disturbed children need more love and acceptance and less harsh disciplining.

Citizens' groups, notably the Mental Health Associations, have taken much of the leadership here, and deserve the major credit for thus improving the lot of the mental patient. In the two centuries of the history of our Republic, individual states have continued to play a role in the care of the mentally ill. The mentally retarded and the mentally ill are two groups of citizens who cannot really speak for themselves, so it seems only fitting that the State itself should serve as their spokesmen.

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- REM
- Stage 1
- Stage 2
- Stage 3
- Stage 4

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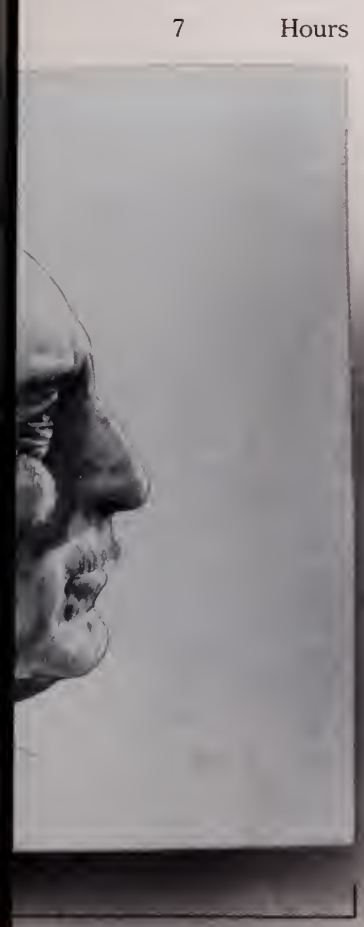

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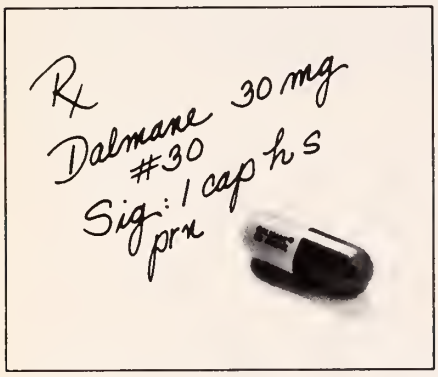

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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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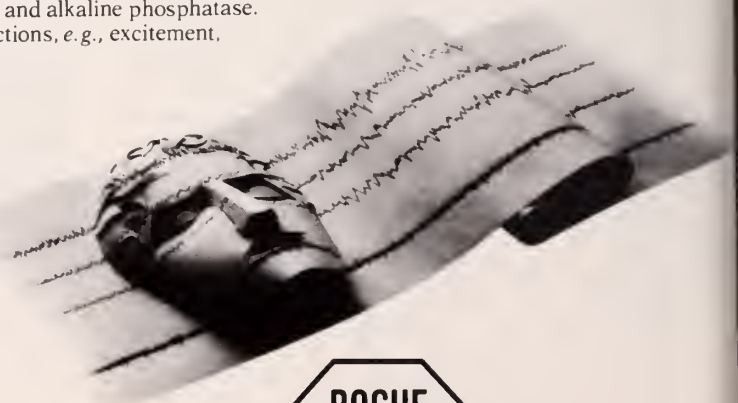
REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971

3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ



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Infant Mortality, Dr. Henry Dwight Chapin, and the Speedwell Society 1890-1920

Peter Romanofsky, Ph.D.
Jersey City*

Before the establishment of the Speedwell Society in 1902, the appallingly high rate of deaths among institutional babies plagued child welfare workers and physicians. In the late nineteenth century, dependent babies were placed indiscriminately in almhouses along with all kinds of adult social deviants. Although some municipalities, like New York and Boston, developed specialized asylums and hospitals for dependent infants, institutional babies still died at alarming rates.

As early as 1874, Dr. Elisha Harris, who played a key role in public health reform in New York, pointed to "the pathetic situation of foundlings" and showed that more than one-half of the babies at New York City's Infants' Hospital on Randall's Island died before the age of one. Dr. Harris also lamented that 70 percent of the infants institutionalized by three private New York City charitable societies died before they were one year old and that 90 percent of them did not live beyond their second birthday.[1] The most respected private charitable group in New York, the State Charities Aid Association, which regularly inspected the Infants' Hospital, stressed that in the 1890's "practically all of the foundlings (at the Infants' Hospital) died." In 1895, for example, 93 percent of the foundlings and 65 percent of the other dependent infants expired.[2]

Physicians and child care agents throughout the country tried to explain the various causes of institutional deaths. Both the medical chief of staff of the Infants' Hospital and a physician at the Massachusetts Infant Asylum argued that many babies died because they were in terribly poor health even before they arrived in the institutions.[3] Others variously blamed the overcrowding and poor ventilation of institutions and the lack of mother's breast milk as factors which caused the tragically high death rate of institutional babies.[4]

One of the most interested and active students of the causes of institutional deaths was Dr. Henry Dwight Chapin, a New York City pediatrician, whose ideas circulated widely. In popular journals like *The Forum* and social work journals such as *The Survey* and before both medical and charity conferences, Dr. Chapin discussed the multiplicity of factors which caused institutional babies to die.[5]

Babies in institutions, Dr. Chapin posited, often died because they were artificially fed. A leader in emphasizing the importance of natural breast milk, Dr. Chapin argued that naturally fed babies were healthier than artificially fed ones. His studies in infant feeding convinced him as early as 1893 that "so extremely susceptible are young infants . . . that they . . . will die of inanition under any system of artificial feeding."[6] And despite new findings which improved the effectiveness of artificial feeding, Dr. Chapin insisted that "nature did not intend a child to take anything but breast milk."[7]

Closely related to but more important than his advocacy of natural breast milk, Dr. Chapin stressed that institutional babies often died because they lacked "motherly care." Institutional babies, Dr. Chapin wrote, "need a certain amount of individual solicitude and care which (must include) handling, petting, and perhaps occasionally foolishness — all embraced in the comprehensive term 'mothering'." Even the most efficient institution would definitely not suffice. "(Dependent babies) need the affection that even an ignorant . . . woman with motherly

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instincts can often give better than a nurse with the highest theoretical training."[8] And writing about institutional babies in *Good Housekeeping,* Dr. Chapin emphasized that "the individual care and love of the mother are a fundamental necessity" in reducing the death rate of such infants.[9]

Equally important to a baby's well-being was a healthy family life. The son of a midwestern Congregational minister, Dr. Chapin, like so many of his generation, believed that the family was "the fundamental unit and basis of society and the state," and represented "the highest form of civilization." In one of his earliest published writings, he argued that only through the family, not through radical changes in institutions and society, could the massive problems of urban poverty be solved.[10] Moreover, his medical experiences in the poverty-stricken areas of New York City — which awakened his social conscience — convinced him that the family "offers the healthiest physical environment."[11] Understanding this, Dr. Chapin insisted, was especially important in the proper care of destitute and homeless infants.

His training, researches, and observations convinced Dr. Chapin that dependent babies needed to be removed from institutions and hospitals and raised in the proper environment. During the 1890's, while he was the head pediatrician of the babies' ward of the New York Post-Graduate Hospital, Dr. Chapin directed two programs which crystallized his support for the boarding-out of infants. Through one program, the ward sent its charges to country homes outside the City so that the infants could recover better in healthy, rural surroundings. For example, in the summer of 1893, a prominent New York woman donated her "charming cottage" in Rye, New York, to the ward. "The effect of the delightful country air and life . . . was wonderful . . . as the little ones returned so plump and rosy," the Hospital reported.[12] In 1895, seventy babies from the ward spent parts of the summer at the Country Home for Convalescing Babies in Chappaqua, New York, where they recovered much more successfully than "if (the ward doctors) had been obliged to send (them) back to their tenement house homes in the fearful heat of a New York summer."[13] As the head of the babies' ward since September, 1890, Dr. Chapin was recognizing the importance of treating sick babies away from the filth of New York City.

Another program at the babies' ward convinced Dr. Chapin of a useful practice: that volunteer women should be organized as home visitors to instruct tenement mothers in the essentials of child hygiene. Consistently aware of developments in the charity organization movement and the growing social work community, Dr. Chapin understood clearly the virtues of "friendly visiting" by wealthy, charitable women, and he appreciated its value in medical social service. So, in 1890, realizing that "the good work of the hospital may easily and quickly become undone by poverty and ignorance in the (baby's) home," Dr. Chapin took a group of volunteer women associated with the Post-Graduate Hospital and organized them into the "Sunbeam Committee." The Committee visited tenement homes and distributed Yiddish, German, Italian, and English booklets which explained not only the hygienic value of cleanliness and ventilation but also the proper techniques of child feeding.[14] The "friendly visiting" by the Sunbeam Committee of the babies' ward, coupled with the use of country homes for convalescing babies, made the ward a leader in caring successfully for sick babies. In 1895, for instance, while 78 percent of all the Randall's Island infants died, the babies' ward cared for 610 babies — some with severe medical problems — yet only 20 percent of them died.[15]

The emphasis that the babies' ward program placed on proper rural environment and on systematic home-visiting influenced the establishment of the Speedwell Country Home Society in 1902. Initially concerned more with foundlings and illegitimate babies than with convalescing children who had families, the Society opened its first unit in Morristown, New Jersey. Chosen for its healthful, rural environment, yet close enough to New York City to maintain contact with the Post-Graduate Hospital, Morristown proved to be a good location. Carefully selected Morristown families, especially those with porches, good ventilation and sufficient grounds, were paid to board children

in the healthy, wholesome environment outside the slums and dirt of New York. Prominent women in the community, including the wife of Mayor Thomas Cauldwell, volunteered to inspect the boarding homes and thus to help promote hygienic conditions. A superintendent who knew the families in the community well and a full-time nurse who visited each child every day comprosed the staff of the Speedwell unit. Dr. Francis Glazebrook, who was active in other Morristown philanthropies, served as the Attending Physician. In addition to his private practice and his service to the Morristown Memorial Hospital, Dr. Glazebrook was always on call and examined each of the babies as often as he could.[16]

The Speedwell babies came largely from the slums and tenement districts of New York. Most of them suffered from severe malnutrition, or gastro-enteritis — "victims of improper or ignorant feeding," according to Dr. Glazebrook. Many Speedwell babies came to Morristown in the last stages of marasmas, a condition of emaciation.[17] Although both Doctors Chapin and Glazebrook believed in the importance of breast milk, because the Society lacked wet-nurses, its babies were generally bottle-fed by using the "Chapin Dipper," which skimmed off the top nine ounces of modified cow's milk. Artificially-fed babies generally suffered from diarrhea, gastro-enteritis, and gastrocolitis, but because of Dr. Chapin's modern techniques, very few Speedwell babies had any of these ailments.[18] There was no limit whatsoever on the amount of days a baby could stay in Morristown, but after eight years' experience, Dr. Chapin reported that a total of 1,386 children stayed an average of four months. At the New York Conference on Hospital Social Service in 1917, he said that children were kept by the Society "until they are well or until they are dead."[19]

The Society successfully alleviated the factors which caused institutional babies' deaths. The system of individual care plus the regularly inspected, clean, and well-ventilated households in which the infants lived guaranteed that infection and contagion were minimized. Morristown families also effectively eliminated a major problem which plagued death-ridden institutions: the absence of "mothering." Morristown foster mothers — who frequently became attached to their babies — lovingly caressed and fondled the dependent and sick babies. "It is to this element of great watchfulness and personal care that the great success of the Speedwell Society is due," wrote a medical journal in 1911. "It is . . . to the training of the foster mothers, to their constant work, to the stimulating visits of the nurse, and the wide and constant counsel of the medical director that such (commendable) results have been accomplished."[20]

The results were splendid indeed. In its first year of operation (1902-1903), while 34 percent of the institutional babies throughout New York State died, only 7 percent of the sixty-two infants cared for by the Society died. Forty-six of these Speedwell cases, formerly marasmic babies — which an official at the Infants' Hospital on Randall's Island called "the worst the medical profession has to deal with" — doubled their weight within a year's period because of the Society's techniques.[21] By 1904, after two years of operation, only a total of twenty Speedwell babies had died even though "all of the 132 infants cared for were considered hopeless cases." In Chicago the death rate at some institutions for babies ran as high as 100 percent.[22] In 1916, practically all of the institutional babies in Baltimore died and in 1913, 52 percent of the infants in three major New York City asylums died. But only 5.8 per cent of the Speedwell babies died in 1912, and in 1914 and 1915, an average of only 2.5 percent of the Speedwell infants died.[23]

In the 1920's, the Society had even greater results. While over 43 percent of the infants under six months of age in asylums in New York State died in 1924, only 3 percent of the babies under six months of age cared for by the Speedwell Society died. In 1923, of 342 babies treated by the Society, there was only one death.[24] Rightfully proud of such results, Dr. Chapin, commenting on the Society, stressed, "Feeble atrophic infants have been nursed back to health and strength and dependent (babies have been) given normal happy home life." He concluded that a significant reduction of deadly infectious diseases is "the outstanding feature of

the work." A French physician, after investigating a unit of the Society, concluded similarly that because infectious diseases were minimized, the mortality rate of Speedwell babies were lowered significantly.[25]

By proving that home care rather than institutionalism (even efficient institutionalism) was best for dependent babies, the Speedwell Society attacked traditional child care practices in New York. Ever since the late 1840's, either the State or the City reimbursed children's institutions according to the number of inmates they maintained. Under this "New York System" foundling asylums had been flourishing.[26] Even though the development of the placing-out movement for older children weakened this "System" by about 1900, private and public agencies continued to institutionalize dependent babies, perpetuating the evils of the "New York System."

From its very inception, however, the Speedwell Society used all its funds for the children "without (the) wasteful expenditure for institutions and employees" that characterized the dominant trend in infant care. An intense critic of such "institutionalism" — a term he used with great disdain — Dr. Chapin saw the Speedwell Society as a reformer of traditional child care practices. He was proud when others agreed that the Society stressed *"human agents* rather than . . . institutional bricks and mortar."[27] Dr. Chapin even thought that the Speedwell plan could eliminate all institutions for dependent children. In the early 1930's, he wrote optimistically, "The Speedwell plan might . . . be gradually employed in emptying orphan asylums."[28]

Dr. Henry L. Coit, himself a prominent pediatrician, once noted the tendency of each medical charity to overestimate its own successes in reducing infant mortality and morbidity.[29] But Dr. Chapin's enthusiastic comments about the Society were confirmed by other, knowledgeable observers. Prominent child welfare workers, like Lillian Wald, praised the Society as the most beneficial method of caring for dependent and sick babies. Homer Folks, an intelligent student of both child welfare and child health, similarly praised the Speedwell plan. And Rabbi Stephen Wise, whose Reform Jewish congregation conducted a Speedwell unit in New Rochelle, New York, declared, "Speedwells should be multiplied throughout the land in order that the largest possible number of babies may be saved."[30]

Not only social welfare agents, but the medical community itself had healthy praise for the Society. Dr. Henry Koplik, a leading New York City pediatrician, told the Section on Pediatrics of the New York Academy of Medicine that "Dr. Chapin's plan was the best" and he praised it as a "really ideal method of caring for (dependent) babies."[31] A French physician who visited the United States to study infant care techniques was impressed with all aspects of the Society. "Thanks to the wonderful initiative of Dr. Chapin, (the Society) has saved hundreds of lives," he wrote in a French medical journal in 1919. And at the 1931 meeting of the American Medical Association, a Colorado Springs pediatrician similarly praised the Society's "remarkable record of excellent care."[32]

While the Speedwell Society never operated throughout the country — as Rabbi Wise had hoped — it did influence the national movement to board-out institutional infants.[33] But, the Society had its greatest impact on institutions in the Metropolitan New York area. For instance, pediatricians at the Grammercy Nursery of New York conferred with Dr. Chapin and then based their boarding-out program on the Speedwell model. The Society cooperated with the Presbyterian, Bellevue, and Babies' Hospitals of New York by caring for some of their convalescing babies. Even the Department of Public Charities of the City of New York, which normally institutionalized its dependent babies, sent some of its sick and undernourished infants to the Society for proper care.[34] And the principle of loving care upon which the Society was based influenced the establishment of an early New York City adoption agency. The Free Synagogue Child Adoption Committee — which later became the Louise Wise Services — "was founded on the principle of the work admirably done by the Speedwell Country Home Society under the inspiration of Dr. Henry Dwight Chapin."[35]

The record thus shows that physicians could and did develop unique and creative methods of car-

ing for dependent babies. Especially in light of the incredibly high death rate facing foundlings and abandoned and illegitimate infants in asylums throughout the country, one wonders why, as social worker Lillian Wald wrote in the 1920's, "so few people (had) imagination enough to visualize (such) a humane . . . social service that is not represented in bricks and mortar."[36] Perhaps it is because so few physicians — and indeed so few child welfare workers — had the social concern and the expertise of Dr. Henry Dwight Chapin. For his work in developing this beneficent and pioneering method of treating dependent infants, he rightfully deserves what prominent Chicago pediatrician Dr. Joseph Brennemann called "a unique place in American pediatrics."[37]

Footnotes

[1]Quoted in Jerome Walker, "Causes and Prevention of Infant Mortality," Seventeenth Annual Meeting of the American Public Health Association, *Papers and Reports*, XV (1890), pp. 75, 78-79.

[2]State Charities Aid Association of New York, New York County Visiting Committee for Bellevue Hospital and other Public Institutions, *Twenty-third Annual Report* (1895), p. 48; (State Charities Aid Association), "Memorandum Submitted in Response to the Department of Finance Letter . . .," confidential, January 22, 1907 (Community Service Society Archives, New York City); see also, Dr. E. S. Dunster to Dr. Isaac Taylor, Randall's Island, March 2, 1872, in New York City, Department of Public Charities, *Minutes of Meetings, 1872* (n.p., n.d.), pp. 103-104.

[3]Dr. Lucy Sewall in Massachusetts Infant Asylum, *Third Annual Report* (1870), pp. 7-9; Dr. E. Kershner to Silas C. Croft, August 3, 1879, copy, Box 29 (Municipal Archives of the City of New York); Elizabeth Cronyn, "Infant Asylums — Their Aims and Achievements," *St. Vincent de Paul Quarterly*, IV (February, 1899), p. 33.

[4]See, for example, Dr. J. H. Mason Knox, Jr., "Discussion," at 1909 Conference on Infant Mortality, in *Prevention of Infant Mortality* (n.p., 1910?), p. 186; Mrs. Henry Finkelpearl, "The Problem of the Illegitimate Child," in W. H. Slingerland, ed., *A Child Welfare Symposium* (New York: Russell Sage Foundation, 1915), pp. 20-21; Dr. E. S. Dunster to Dr. Isaac Taylor, March 2, 1872, New York City, Department of Public Charities, *Minutes, 1872*, pp. 103-104.

[5]For a suggestion of the importance of Dr. Chapin, see Robert H. Bremner, John Barnard, Tamara K. Hareven, and Robert M. Mennel, eds., *Children and Youth in America: A Documentary History* (Cambridge: Harvard University Press, 1971), II, 814.

[6]Chapin, "Studies in Infant Feeding," *New York Medical Journal*, LVIII (September 16, 1893), p. 311.

[7]Chapin, "The Influence of Breast Feeding on the Infant's Development," *Arch Ped*, XXI (August, 1904, p. 581.

[8]Chapin, "The Proper Management of Foundlings and Neglected Infants," reprint from *Medical Record*, LXXIX (February 18, 1911), p. 7.

[9]Chapin, "The Rights of Childhood," *Good Housekeeping*, 69 (December, 1919), p. 126.

[10]Chapin, "Preventable Causes of Poverty," *The Forum*, 7 (June, 1889), p. 418.

[11]Chapin, "Are Institutions for Infants Necessary?" *JAMA* LXIV (January 2, 1915), p. 3; Chapin, "Proper Management of Foundlings," reprint, p. 7.

[12]New York Post-Graduate Hospital, Ninth Annual Report (1893), p. 9.

[13]Post-Graduate Hospital, Babies Ward, *Report, 1895*, p. 15; there was another such program in Summit, New Jersey. *Ibid., Report, 1901*, p. 14.

[14]*Ibid., Report, 1895*, pp. 6-7; Chapin, "Hospital Social Service for Children," *Medical Record*, XCI (March 3, 1917), p. 353; on Chapin and the Charity Organization Society, see, Charity Organization Society of New York, *Twelfth Annual Report* (1893), p. 30.

[15]Post-Graduate Hospital, Babies' Ward, *Report, 1895*, p. 10; State Charities Aid Association, Agency for Providing Situations in the Country, *Third Annual Report* (1896), p. 10; State Charities Aid Association, New York County Visiting Committee for Bellevue and other Public Institutions, *Twenty-third Annual Report* (1895), p. 48.

[16]*New York Daily Tribune*, April 11, 1904; Dr. Francis Glazebrook, "A Method of Dealing with Illy-Nourished Infants," *Arch Ped*, XXVIII (February, 1911), pp. 129, 131; *Morristown Daily Record*, July 3, 1942.

[17]*New York Daily Tribune*, April 11, 1904; Glazebrook, "A Few Remarks on Infant Feeding," *Medical Record*, LXVI (December 3, 1904), p. 893; Glazebrook, "A Method," pp. 130-131.

[18]Glazebrook, "Discussion," New York Academy of Medicine, Section on Pediatrics, January 12, 1911, in *Medical Record*, LXXIX (February 18, 1911), p. 324; Glazebrook, "A Few Remarks," p. 893.

[19]Chapin, "Discussion," New York Conference on Hospital Social Service, *Proceedings*, IV (1917, p. 110; Chapin, "Discussion," New York Academy of Medicine, Section on Pediatrics, January 12, 1911, in *Medical Record*, LXXIX (February 18, 1911), p. 325.

[20]Editorial, "The Problem of the Foundling," *Arch Ped*, XXVIII (February, 1911), p. 83; *New York Daily Tribune*, April 12, 1904.

[21]*The New York Times*, March 20, 1903; New York statistic cited in, Dr. Henry L. K. Shaw, "St. Margret's House, Albany," Fifteenth International Congress on Hygiene and Demography, *Transactions*, III (1913), p. 81; J. W. Collier to Board of Commissioners, January 1, 1894, in New York City, Department of Public Charities and Corrections, *Thirty-fourth Annual Report* (1893), p. 139.

[22]Dr. Joseph B. Lee, "Discussion," in *Chicago Medical Recorder*, n. s., XXIV (March 15, 1903), p. 221; *The New York Times*, April 12, 1904.

[23]Speedwell Country Home Society, *Eleventh Annual Report* (1912), p. 10; *Thirteenth Annual Report* (1914), p. 7; *Fourteenth Annual Report* (1915), p. 17; "The New and More Efficient Plan of the City for Handling Foundlings and Other Dependent Children," *The* (Baltimore) *Municipal Journal,* IV (January 12, 1917, p. 5; Dr. Philip Van Ingen, "Infant Mortality in Institutions," National Conference of Charities and Corrections, *Proceedings* (1915), p. 128.

[24]Chapin, "The Speedwell Society: Its Aims and Results," (c. 1925?), manuscript sent to author by the Speedwell Convalescent Homes, pp. 2-3; Speedwell Society, *Twenty-third Annual Report* (1924), p. 7; New York State, Board of Charities, *Sixtieth Annual Report* (1926), p. 32.

[25]Chapin, "The Speedwell Society: Aims and Results," pp. 2-3; P. F. Armand-deLille, "Le Placement Familial des Nourrissons Débiles à la Campagne: La Speedwell Société de New-York," *Le Nourrisson: Revue d'Hygiène et Pathologie de la Première Enfance,* 7 (Mai, 1919), p. 170.

[26]Homer Folks, "The New York System of Caring for Dependent Children," New York State Conference of Charities and Corrections, *Proceedings* (1900), pp. 129-138; see also, State Charities Aid Association, New York City Visiting Committee, *Second Annual Report* (1905), p. 69.

[27]Chapin, "Homes or Institutions?" *Review of Reviews,* 80 (July, 1929), p. 51; Lillian Wald to Chapin, n.,d., in Chapin, "The Speedwell Society: Aims and Results," p. 7; Armand-deLille, "Le Placement Familial," p. 171.

[28]Chapin, *The Speedwell Plan and Its Realization* (New York: The Speedwell Society, 1930?), p. 3.

[29]Dr. Henry L. Coit, "A Method of Determining the Influence of Medical Philanthropy in Reducing the Morbidity and Mortality of Infants," American Association for the Study and Prevention of Infant Mortality, *Transactions,* 1 (1910), p. 257.

[30]Wise to Chapin, n. d.; Folks to Chapin, n.d.; Wald to Chapin, n. d., all in Chapin, "The Speedwell Society: Aims and Results," pp. 7-8; see also, "Speedwell Society," Babies' Welfare Association of New York, *Weekly Report* 2 (November 11, 1916), p. 183.

[31]Koplik to Chapin, n. d., in Chapin, "The Speedwell Society: Aims and Results," p. 4; Koplik, "Discussion," New York Academy of Medicine, Section of Pediatrics, January 12, 1911, in *Medical Record,* LXXIX (February 18, 1911), p. 325.

[32]Dr. Elmer L. Timmons, "Abstract of Discussion," *JAMA* , XCVIII (January 2, 1932), p. 42; Armand-deLille, "Le Placement Familial," p. 171; see also Dr. Abraham Jacobi to Chapin, November 15, 1915, in Speedwell Society, *Fourteenth Annual Report* (1915), p. 13.

[33]Esther McClain, *Child Placing in Ohio* (Columbus: Department of Public Welfare, 1928), pp. 64-65; Chapin obituary, *The New York Times,* June 28, 1942; Glazebrook, "A Metho ," p. 134.

[34]Alexander Wilson to Chapin, n. d.; E. T. Patterson to Chapin, n. d., in Chapin, "The Speedwell Society: Aims and Results," pp. 6-7; Dr. Miner C. Hill, "Advantages of Home Care over Institutional Care," *Medical Record,* XCVII (April 24, 1920), p. 693.

[35]Free Synagogue of New York, *Bulletin,* IX (February 25, 1917), no pagination; "Child Adoption Committee of the Free Synagogue," Babies' Welfare Association of New York, *Weekly Report,* 3 (January 6, 1917), p. 2.

[36]Wald to Chapin, n. d., in Chapin, "The Speedwell Society: Aims and Results," p. 7.

[37]Dr. Joseph Brennemann, "Discussion," June 12, 1931, in Chapin, "Convalescent Care for Hospital Babies," reprint from *JAMA,* XCVIII (January 2, 1932), p. 9.

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Bone Graft Reconstruction of the Skull*

G. L. Becker, Jr., M.D./Paterson
J. J. Bowe, M.D./Ridgewood

Bone defects of the skull have long been a concern to mankind. They have been mentioned in ancient Egyptian papyri[3] and the tools for trephination have come down to us through archeological digs of ancient civilizations. Today, extensive loss of skull is certainly produced evermore frequently, not only from the trauma of war and our mechanized society, but also from severe electrical burns. Surgical efforts at extirpation of tumor and the correction of anomaly also provide a need for skull reconstruction.

Alloplastic materials have long been sought to provide an answer to skull defects; gold, silver, platinum and lead have all been employed and enjoyed some popularity in World War I. Celluloid produced severe foreign body reactions. Tantalum was rather widely used for bone replacement in the second World War and later polyethylene and acrylic materials were favored. Review of a series of these procedures shows, a high rate complication, with a failure rate of up to 18 percent with stainless steel.[3]

Bone graft replacement of skull defect is not new. Longacre[3] cited Ollier for suggesting autogenous bone with intact periosteum. Macewen,[6] in 1896, performed a rib graft to the jaw in a young woman with marked traumatic mandibular deformity with good survival and follow-up of many years.

Tibial bone grafts have also been used in skull defects. Delangiere[3] reported a series of 104 cases with only two failures. In 1915, Kappis[2] reported using full thickness rib in the skull; later surgeons used split ribs, at first to provide chest cage protection. Subsequent surgeons split the ribs to gain more graft substance for defect filling. Blocker[1] used iliac bone successfully for defects of bones of the face. The excellence of cancellous bone in grafting has been described.

Subsequent to this pioneer work, Longacre[3, 4, 5] studied this problem in monkeys and humans and reported a large series of successful major skull reconstructions with split rib grafting. He has emphasized the great storehouse of bone available to the surgeon in the chest-cage. This material is "non-epiletogenic," safe, and expedient, even in small children. Biopsies of the experimental animal cases at three and nine months showed early vascularization of graft with fibrous union and subsequent bone elaboration and rib outline effacement. The line of union of bone graft to intact skull was felt to resemble a normal cranial suture in microscopic morphology. Though the source of the bone proliferation was not identified, it was felt that osteocytes were contributed from both living graft and neighboring skull.

The current work in free microvascular transplantation of bone is a great advance that has been reported experimentally in animals by Ostrup and Fredrickson[7] and, this year, in a human leg by Taylor, *et al.*[8] who transplanted a fibula to the contralateral leg by microvascular anastomosis. Doubtless, future skull bone grafting will be attempted by this method.

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*Read before the Sections on Neurosurgery and Neurology, and Plastic and Reconstructive Surgery, 209th Annual Meeting, The Medical Society of New Jersey, Cherry Hill, June 1, 1975. Dr. Becker is Attending Neurosurgeon at St. Joseph's Hospital, Paterson and Valley Hospital, Ridgewood, and is an Instructor in Neurological Surgery at Columbia University College of Physicians and Surgeons, New York City. Dr. Bowe is Attending Plastic Surgeon at Valley Hospital, Ridgewood and St. Joseph's Hospital, Paterson.

Material

We have had occasion to do skull reconstruction by bone graft on nine patients over a ten-year period. Six of these were split rib grafts and three were iliac bone grafts. These patients varied in age from twenty months to twenty-six years and have been followed from two years to ten years. Seven of the defects were post-traumatic, while the other two were post-operative. Two of the patients were female and the remaining seven were male. Of the nine patients, there are only three who might be considered neurologically unimpaired from their primary injury. One patient had a single seizure, three years after a most severe trauma to the entire face and skull in a motor vehicle accident. Six patients have been maintained on previously employed anti-convulsant therapy. One individual presented an exposed alloplastic polyethelene implant which was removed at the time of bone grafting.

Technique

When feasible, access by excision of the previous scar was utilized. The dura is exposed around the entire margin of the defect. In the event that the dura is bulging, or there is increased intracranial pressure which interferes with the technical performance of the procedure, spinal fluid is drained by lumbar puncture. Freshening of bone margin for reception of the graft is carefully accomplished and hemostasis obtained. Where ribs are the donor site, an incision is made from the angle of the scapula, past the anterior axillary line or beyond, usually over the 7th rib. After muscle division and hemostasis, subperiosteal rib resection of an appropriate amount of bone is done. Alternate ribs have been used when multiple grafts are needed. The periosteum of the rib is then reapproximated by suture for smoother regeneration. The rib is split lengthwise, either by knife or osteotome. In the case of iliac crest, the incision is made over the flair of the pelvis and a segment of bone, approximately the size and configuration desired for the skull defect, is taken from the inner surface of the ilium. Modeling or tailoring of the autogenous bone graft to the size and shape suitable for the skull defect is then done. The donor material may be scored or molded to achieve a satisfactory fit and form. The bone graft is placed snugly in host bone and contact is generally secured in place with nonabsorbable material, usually stainless steel wire. Spaces between the rib grafts are filled with pieces of autogenous bone and cancellous paste. A careful soft tissue closure is accomplished without drainage.

Results

Though all of these patients have been followed by radiographs, clinical evaluation has proved far superior in estimating successful take of bone graft. Direct palpation of the defect will indicate readily the security of union and firmness of graft. A good result was considered to be one with no palpable pulsation or defect, with acceptable appearance and firm underlying bone to palpation. Often the post-operative radiographs showed good bone density. All of our cases were felt to be in this category, except for one in which fibrous union persisted and additional rib grafts were placed two years after the primary grafting. Good bony union was obtained in this case. Another patient developed a

Figure 1 — Post traumatic defect of parietal region

Figure 2 — Rib grafts in place at operation

Figure 3 — Three months post-operative

sinus to a stainless steel wire. This responded to excision of sinus and local flap advancement, and no loss of graft occurred. No persistent donor site difficulties occurred. One child developed a scanty amount of pleural fluid without pneumothorax, and this resolved spontaneously. No other complications have been encountered. Blood transfusions were given in six of these cases and it is of interest that these were our earliest cases.

Comment

Though this type of reconstruction may require somewhat more operative time than alloplastic employment, it offers definite advantages. It is useful in children, in whom further growth is anticipated. Bone can be employed successfully in those cases where sepsis, or plate migration, has given a poor result in previous cranioplasty. Furthermore, a living bone graft which simulates original skull in strength and histologic composition, while at the same time becoming an integral part of the skull, is inherently superior to any foreign substance. Finally, the donor bone is readily available in good supply in the patient's own body. It is true that a secondary wound with its resultant scar and discomfort is necessary but this, we believe, is far overbalanced by the merits of the procedure. We would emphasize that the first treatment of a skull defect should be replacement of the patient's own bone at the time of injury. In our practice, autogenous bone fills the need for the "difficult" cranioplasty.

Bibliography

1. Blocker T G and Weiss L R: Use of cancellous bone in repair of defects about the jaws. *Ann Surg* 123: 622-640, 1946.

2. Kappis A: Deckung von schadeldefekten. *Zentralb Fur Chir* 42: 897-898, 1915.

3. Longacre J J and DeStefano G A: Reconstruction of extensive defects of the skull with split rib grafts. *Plast Reconstr Surg* 19: 186-199, 1957.

4. Longacre J J and DeStefano G A: Further observations of the behavior of autogenous split rib grafts in reconstruction of extensive defects of the cranium and face. *Plast Reconstr Surg* 20: 281-296, 1957.

5. Longacre J J and DeStefano G A: Experimental observations of the repair of extensive defects of the skull with split rib grafts. *Plast Reconstr Surg* 21: 372-387, 1958.

6. Bowman A K: *Sir William Macewen*. London, William Hodge and Company, Ltd., 1942, pp 144-147.

7. Ostrup L T and Fredrickson J M: Distant transfer of free living bone graft by microvascular anastomoses. *Plast Reconstr Surg* 54: 274, 1974.

8. Taylor I, Miller G, and Ham F: The free vascularized bone graft. *Plast Reconstr Surg* 55: 533-544, 1975.

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Experience with the Questionnaire Course as an experiment in continuing medical education over a period of five years is briefly described. An analysis of the responses to the questionnaire on "Management of Arterial Insufficiency of the Lower Extremities" is presented. This teaching technique has several advantages that encourage its continuation in the future.

Controversies in the Management of Arterial Insufficiency of the Lower Extremities

A Questionnaire Course*

Eric J. Lazaro, M.D., Benjamin F. Rush, Jr., M.D., and Alfred A. Alessi, M.D./Newark

The Questionnaire Course on Controversial Issues in Surgery was first described in a previous communication as an experiment in continuing education.[1] The purpose of this report is to summarize our experience with this educational exercise, and to present an analysis of the responses to the most recent Questionnaire Course on "Arterial Insufficiency of the Lower Extremities" that was conducted in the spring of 1975.

Since initiation of the program in 1970, topics that were the main theme of previous courses included: peptic ulcer, cancer of the breast, pancreatic disease, benign diseases of the esophagus, and portal hypertension with variceal hemorrhage.

The essential feature of the course is a questionnaire circulated prior to each meeting to assess the knowledge and surgical practice of surgeons in the state concerning the topic of the proposed symposium. The symposium consists of: (1) a series of presentations by three or more guest speakers on important aspects of the main topic; (2) presentation of the tabulated responses to the previously circulated questionnaire; and (3) a panel discussion by the principal speakers and other experts in the field.

The questionnaire which is prepared by an *ad hoc* committee consists of approximately 30 multiple choice questions that generally emphasize more practical aspects of the topic, and aim at determining more commonly accepted practice. The responses obtained from surgeons in the state and from the guest speakers are tabulated by computer for presentation at the meeting. The anonymity of the respondents is constantly maintained.

The program is sponsored jointly by The Medical Society of New Jersey, the New Jersey Chapter of the American College of Surgeons, the College of Medicine and Dentistry of New Jersey (New Jersey Medical School and Rutgers Medical School), and the Academy of Medicine of New Jersey.

The answers of 70 respondents to the questionnaire on "Controversies in the Management of Arterial Insufficiency of the Lower Extremities" are tabulated below.

Questions	*Preferred Answers of Respondents (%)*				
	(1)	(2)	(3)	(4)	(5)
1. A 70-year old man has pain in the calf after walking a distance of two blocks. The pain is relieved promptly by rest. In your experience the most	5	3	6	83	3

*Presented in part at the 209th Annual Meeting of The Medical Society of New Jersey, Cherry Hill, New Jersey, June 2, 1975. Dr. Lazaro is Professor of Surgery; Dr. Rush is Johnson and Johnson Professor and Chairman, Department of Surgery; and Dr. Alessi is Clinical Professor of Surgery, CMDNJ, New Jersey Medical School.

[1]Rush BF and Lazaro EJ: The questionnaire course — An exercise in continuing education. *Bull Am Coll Surg* 58:3, 1973

	(1)	(2)	(3)	(4)	(5)
common cause of this symptom complex is: (1) segmental occlusion of the aortic bifurcation (2) common iliac artery obstruction (3) obstruction of the profunda branch of the femoral artery (4) obstruction of the superficial femoral artery (5) other or no opinion.					
2. Approximately what percentage of patients referred to you with intermittent claudication as the sole symptom of non-diabetic peripheral arterial disease will sooner or later undergo reconstructive arterial surgery? (1) less than 20 percent (2) 20 to 40 percent (3) 40 to 60 percent (4) over 60 percent (5) no opinion.	14	32	34	14	6
3. You employ noninvasive techniques to evaluate your patients with arterial occlusive disease prior to and after reconstructive surgery: (1) never (2) occasionally (3) frequently (4) always or almost always (5) no opinion.	6	22	17	52	3
4. The indication for reconstructive surgery in your patients with arterial insufficiency of the lower extremities is most likely to be: (1) intermittent claudication (2) disabling claudication (3) ischemic rest pain (4) gangrenous changes (5) other indication or no opinion.	5	60	29	6	0
5. You establish a diagnosis of occlusion of the superficial femoral artery in a 72-year old man who has "three block" intermittent claudication and no rest pain. For the management of this patient you are most likely to recommend: (1) graded, progressive exercise and cessation of cigarette smoking (2) lumbar sympathectomy (3) revascularization with a bypass graft (4) thromboendarterectomy (5) other or no opinion.	86	6	3	2	3
6. Your second choice of prosthetic material for femoropopliteal bypass grafts *above* the knee is: (1) autogenous saphenous vein graft (2) woven or knitted dacron graft (3) bovine heterograft (4) saphenous homograft (5) other choice or no opinion.	11	61	14	3	11
7. Your second choice of prosthetic material for a femoropopliteal bypass graft *below* the knee is: (1) autogenous saphenous vein graft (2) woven or knitted dacron graft (3) bovine heterograft (4) saphenous homograft (5) other choice or no opinion.	13	36	19	13	19
8. Your choice of operation for unilateral iliac artery occlusion is: (1) unilateral aortofemoral bypass (2) axillofemoral graft (3) aortoiliac endarterectomy (4) femorofemoral crossover graft (5) other procedure or no opinion.	47	0	17	22	14
9. You employ axillofemoral bypass grafts: (1) mostly for restoration of blood flow to the leg after removal of an infected intra-abdominal graft (2) routinely in the treatment of advanced ischemia in elderly poor-risk patients (3) never, but are willing to try them (4) when all other revascularization routes are unavailable (5) other answer or no opinion.	33	13	14	30	10
10. The approximate patency rate that you obtain in your patients with femoropopliteal saphenous vein grafts below the knee at one year postoperative is: (1) less than 20 percent (2) 20 to 50 percent (3) 50 to 75 percent (4) over 75 percent (5) no opinion.	5	30	21	31	13
11. What is your experience with bovine arterial grafts for lower extremity arterial insufficiency? (1) have never employed these grafts but are willing to do so when the occasion arises (2) have used them previously but later abandoned them (3) occasionally employ them (4) frequently employ them (5) other answer or no opinion.	50	17	6	6	21
12. Your overall perioperative and postoperative mortality (death within 10 days following operation) for femoropopliteal bypass procedures is: (1) less than 2 percent (2) 2 to 5 percent (3) 5 to 10 percent (4) over 10 percent (5) no opinion.	53	30	6	0	11
13. In your opinion the most important factor responsible for early failures in femoropopliteal (saphenous vein) graft patency is: (1) technical causes (2) diabetes (3) severity of ischemia (4) poor runoff (5) other factor or no opinion.	34	0	2	53	11
14. In patients on whom you have performed aortoiliac endarterectomy the overall patency rate is approximately: (1) over 85 percent (2) 70 to 85 percent (3) 50 to 70 percent (4) less than 50 percent (5) no opinion.	26	17	9	17	31
15. In operations on the arterial tree you usually employ heparin intraoperatively: (1) only systemically (2) only by injection into the distal arterial tree (3) both systemically and by injection into the distal arterial tree (4) seldom or never (5) other or no opinion.	24	21	49	3	3

	(1)	(2)	(3)	(4)	(5)
16. Intraoperative autotransfusion in abdominal aortic resections is a useful modality for providing blood during difficult aortic resection. You: (1) have the set-up for autotransfusion and employ it at your institution(s) (2) have read and heard about it but have not employed it yet (3) are vehemently opposed to the idea (4) have tried it but found it too cumbersome and have therefore abandoned it (5) have another or no opinion.	17	67	3	5	8
17. You perform intraoperative angiography: (1) routinely in all patients undergoing aortoiliac and femoropopliteal reconstruction (2) occasionally in aortoiliac and frequently in femoropopliteal reconstruction (3) rarely or never in aortoiliac and occasionally in femoropopliteal reconstruction (4) never in aortoiliac or femoropopliteal reconstruction (5) other answer or no opinion.	8	17	63	2	10
18. What percentage of your patients having femoropopliteal reconstruction have postoperative angiography prior to or shortly after discharge? (1) 0 percent (2) under 20 percent (3) 20 to 50 percent (4) 50 to 100 percent (5) no opinion	50	31	3	8	8
19. A 68-year old male presents with disabling claudication of the left leg due to aortoiliac occlusive disease. Your procedure of choice in this patient is: (1) axillofemoral graft (2) femorofemoral graft (3) endarterectomy (4) aortoiliac graft (5) other choice or no opinion.	0	16	16	60	8
20. In approximately what percentage of patients on whom you carry out femoropopliteal revascularization do you perform concomitant lumbar sympathectomy? (1) 0 percent (2) under 25 percent (3) 25 to 50 percent (4) over 50 percent (5) no opinion.	32	40	14	11	3
21. In your experience what percentage of patients with peripheral arteriosclerotic occlusive disease who have undergone lumbar sympathectomy as the sole operative procedure, because no reconstructive procedure was possible, demonstrate satisfactory improvement? (1) 0 percent (2) less than 25 percent (3) 25 to 50 percent (4) over 50 percent (5) no opinion.	11	55	26	6	2
22. In your experience complete bilateral lumbar sympathectomy (including the L_1 ganglia) in a male patient is most likely to result in: (1) hyperhydrosis of the lower extremities (2) impotence (3) decreased detrusor muscle function of the bladder (4) permanent hypotension unrelated to position (5) other effect or no opinion.	5	60	2	2	31
23. A 60-year old well-controlled female diabetic is admitted with gangrene of the great toe of 2 weeks duration due to superficial femoral artery occlusion. Angiography demonstrates that no surgical reconstruction is possible. You would preferably advise this patient at this time: (1) amputation of the great toe (2) transmetatarsal amputation (3) below-knee amputation (4) above knee-amputation (5) other procedure or no opinion.	33	33	18	5	11
24. The number of below knee (BK) amputations you currently perform for arteriosclerotic gangrene is: (1) less than the number of above knee (AK) amputations (2) equal to the number of AK amputations (3) slightly greater than the number of AK amputations (4) much greater than the number of AK amputations (5) no opinion.	23	10	20	44	3
25. Your overall mortality for above knee and below knee amputations for gangrene of the lower extremities due to arteriosclerotic disease is: (1) less than 2 percent (2) 2 to 5 percent (3) 5 to 10 percent (4) over 10 percent (5) no opinion.	28	38	17	12	5
26. In your recent experience (over the past 10 years or less) the overall amputation rate following "successful" femoropopliteal arterial reconstruction in patients operated upon for obliterative disease without gangrene is: (1) less than 5 percent (2) 5 to 10 percent (3) 10 to 20 percent (4) over 20 percent (5) no opinion.	35	26	20	8	11
27. When amputation becomes necessary following successful femoropopliteal bypass the amputation that you most often perform is: (1) transmetatarsal (2) below knee (3) through the knee joint (4) above the knee (5) other procedure or no opinion.	26	43	5	16	10
28. What is your attitude toward "prophylactic" antibiotics in patients undergoing arterial reconstruction for occlusive disease of the lower extremities? (1) routinely employ them (2) employed them routinely in the past but have now abandoned them (3) did not employ them initially but frequently do so now (4) attitude changes from time to time (5) other or no opinion.	68	3	6	8	15

	(1)	(2)	(3)	(4)	(5)
29. When you employ antibiotics for patients undergoing arterial reconstructive procedures you prefer to prescribe these agents: (1) commencing preoperatively and continuing for a few days postoperatively (2) commencing intraoperatively and continuing for a few days postoperatively (3) commencing postoperatively and continuing for a few days after that (4) utilizing different regimens from time to time (5) no opinion.	60	18	6	8	8
30. What percentage of your surgical practice is devoted to vascular surgery? (1) 80 to 100 percent (2) 60 to 80 percent (3) 50 to 80 percent (4) 25 to 50 percent (5) other or no opinion.	10	5	10	40	35

Comment

Our experience with the Questionnaire Course has enabled us to recognize its several advantages: (1) it provides advance publicity of the program; (2) it gives surgeons an opportunity to consider the subject in depth, to test their knowledge, and to assess their past clinical experience and practice in relation to the problem to be discussed; (3) practicing surgeons are able to compare their customary practices and beliefs with those of their colleagues in the State; and, (4) general interest and attendance at the annual meeting are enhanced.

The meetings, which were originally held alternately either in the northern or in the central part of the State, have for the past two years become an integral part of the Annual Meeting of The Medical Society of New Jersey. Encouraged by the enthusiastic participation by members of The Medical Society of New Jersey in the course which is approved for academic credit (category 1) by the American Medical Association, we have elected to continue the Questionnaire Course as part of future annual meetings of the surgical section of The Medical Society of New Jersey.

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Concise Clinical Neurology Review

The Clinical Neurology Information Center, which is largely supported by the National Institute of Neurological and Communicative Diseases and Stroke (NIH), publishes a biweekly review of articles of interest to the clinical "neuroscientist," appropriately named the "Concise Clinical Neurology Review (CCNR)." Of approximately 10,400 articles now being reviewed, 4,000 of these will be presented as "terse conclusions," i.e., a single sentence summarizing the essence of the article. The remaining 6,400 will be presented as references only. The review includes articles published in over 850 regularly recurring journals, over half of which are not later than three to four weeks after their appearance in the journal. The Concise Clinical Neurology Review gives a comprehensive overview of the current information applicable to this field.

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Special Article

Informed Consent — Myth or Mandate

Walter H. Beckham, Jr., J.D., Miami, Florida*

A basic principle of our law is that "every human being of adult years and sound mind has the right to determine what shall be done with his own body . . ." (Schloendorff vs. Society of New York Hospital, 211 N.Y. 125, 129, 105 N.E. 92, 93 (1914)). Likewise one who intentionally, and without a privilege or consent, brings about a harmful or offensive touching of another's body is guilty of a battery. If, prior to the touching, the party touched is put in reasonable apprehension of the unlawful touching then an assault has also been committed. Therefore, it is only the patient's consent, express or implied, which permits the physician intentionally to touch, or to cause something else to touch, the patient's body.

In addition, once the physician-patient relationship is established there exists, in law, a fiduciary relationship — that is, a relationship of trust and confidence — between them. Such a legal relationship carries with it an affirmative duty to disclose all relevant facts which are pertinent to it, for, legally, the parties are no longer dealing with each other at arms' length.

The doctrine of informed consent addresses itself to the problem of whether or not at the time the patient purportedly gave consent to an operation or treatment by the physician such consent was given under such a mistake as to either its essential nature or as to the risks involved in it, that the consent will be declared invalid. If the consent is invalid then the physician may be legally liable as indicated above. Thus this doctrine originated through the law of assault and battery.

Later it was recognized that the physician's standard of professional conduct requires him to make to his patient a reasonable disclosure of the available choices open to him and of the dangers involved in each. He must disclose enough so that the normally non-medically oriented patient can make an intelligent choice on which to base his consent. With this recognition the courts found that it was negligent for the physician not to conform to this standard of professional conduct. In law, negligence here is the failure to act as a reasonable physician would under the same or similar circumstances. Most informed consent cases now proceed on the legal basis of negligence although assault and battery may still be applied if the procedure or treatment is clearly one to which the patient has not consented.

What then do the courts say the reasonable physician does in order to obtain his patient's informed consent? We say *courts* for this is a matter of substantive state law and therefore it is the highest court in each state which sets the law for that state. Thus, the law of the several states may not be uniform on the subject and the physician must look to the law of the state where he practices his profession for the ultimate statement of his legal duty. We shall mention here certain principles which have been enunciated in various states.

Some courts have said that the physician must disclose that which a reasonable medical practitioner would have disclosed under the same or similar circumstances. Where such a rule is in effect it would seem essential that expert medical testimony would be required as to the nature and extent of the required disclosure since it would be beyond the knowledge of the lay person. It then becomes a question for a lay jury to determine based upon the opinion of medical experts as to what would be a medically reasonable disclosure under the circumstances of the particular case. On this issue several courts have judicially recognized that since a full disclosure might itself be medically detrimental to some patients the physician may appropriately consider the nature of the patient in determining the nature and extent of the disclosure.

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*Mr. Beckham is Professor of Law, University of Miami Law School. This paper was presented at the Carrier Clinic Foundation symposium on "The New Medicolegal Crises," October 1, 1975, Belle Mead, New Jersey.

It has also been held that, even though expert medical testimony would normally be required, if the necessity of the disclosure is so apparent that it can be recognized by laymen no expert testimony is required to establish its necessity. This is a recognition of the usual rule that expert testimony is not necessary if the matters adduced are within the knowledge and experience of lay persons and are able to be evaluated by them without the aid of an expert.

Other courts have stated the requirement to be that the physician must disclose all relevant material facts to the patient and that expert medical testimony is unnecessary to establish the required standard of disclosure. The issue in these courts will of course center on what are the relevant material facts which must be disclosed. Similarly some courts have said that the physician must warn his patient of any substantial risk incident to the procedure or treatment; others have spoken of a duty, in certain circumstances, to reveal any serious risks.

What is a substantial or a serious risk or what is a relevant material fact may depend on both the viewpoint of the physician and the patient. Since the treatment or surgery is a joint undertaking but one which involves primarily risks to only the body of the patient it would seem that his viewpoint is worthy of consideration. There is, of course, still a considerable judgment factor in deciding whether a given risk is substantial or serious or material.

One court has said that a risk is "material when a reasonable person, in what the physician knows or should know to be the patient's position, would be likely to attach significance to the risk or cluster of risks in deciding whether or not to forego the proposed therapy," Canterbury v. Spence, 464 F.2d 772 (Court of Appeals, District of Columbia 1972). This court likewise indicated that: "The topics importantly demanding a communication of information are the inherent and potential hazards of the proposed treatment, the alternatives to that treatment, if any, and the results likely if the patient remains untreated." It said further: "The factors contributing significance to the dangerousness of a medical technique are — the incidence of injury and the degree of harm threatened."

A couple of courts have simply stated that the physician must make a full disclosure of the known dangers inherent in the treatment or procedure. While this puts a broader duty on the physician, perhaps one that he considers overly broad, still it involves a determination of when a risk is of such an incidence and magnitude as to constitute a danger. One court has said that in a complicated procedure a physician must disclose a risk of death or serious bodily harm if it exists. Thus you can see that the courts are gradually attempting to refine and break down the semantics involved in the statement of the rule.

Of course if the patient requests that he not be informed or refuses to be informed the physician is excused from his duty of disclosure provided the patient is a competent adult. Likewise, in the case of a competent adult, the physician does not owe a duty of disclosure to the patient's spouse or family. If the patient is an incompetent or an infant then these rules would not apply. While the consent of a parent or relative or guardian of an infant in certain cases may be, in fact, effective, the physician should understand that in the final analysis, in the absence of an emergency, usually only a court may give a completely binding consent in these two situations.

It has been held that a physician need not inform a patient of the hazards of an improper performance of a procedure. Both the physician and the patient normally have the right to assume that the procedure will be properly performed. If it is negligently performed then the negligent party will be liable for the consequences of his negligence, for the informed consent is not a consent to negligence in carrying out the consented to treatment or procedure.

Likewise there is normally no duty to communicate those dangers of which the patient is already aware or of which persons of average sophistication are aware unless the physician knows or should know that the patient is actually not so aware.

If the procedure is novel and unorthodox it has been held that the physician must so inform his patient. This would seem to be so because in and of itself it may be considered a relevant material fact for the patient to consider. Likewise, the

risks in such a procedure may themselves not yet be well enough known to be revealed specifically.

In these cases normally the patient testifies he would not have consented to the treatment or procedure had he known of any undisclosed risk, for if he would have consented anyway then there has been no harm as a result of the non-disclosure. Here the question is whether the court is bound by the subjective statement of the patient or whether it will apply an objective test. Several courts have specifically held that on this issue the jury must determine what a reasonably prudent person in the position of the patient would have decided if adequately informed by the physician. This means that the jury can bring to bear on the individual problem the conscience of the community which they represent. If the jury represents a cross section of the community its finding on this issue will be representative of community sentiment. As such it should be heeded by the medical community.

In the case of an emergency where the patient is incapable of giving consent the physician should try to get the consent of a relative if possible. If this is not possible and the emergency has not been created by the physician himself, the law will normally supply an implied consent of the patient to necessary medical treatment, particularly if it is necessary to save life or to prevent serious disability. Such an implied consent is, of course, only to non-negligent care and treatment.

Where the patient is apprehensive and it is feared that if given the relevant material facts it will be medically injurious to him the courts have tended to balance the seriousness and incidence of the risks involved against the level of apprehension of the patient. As the seriousness and incidence of the risks become greater there is a greater duty to disclose even to the apprehensive patient. Where there is a high incidence of serious complications it has been held they must be communicated even to the apprehensive patient.

How can the physician best protect himself? I should like to suggest the following:

(a) Have his own lawyer or the medical society lawyer keep him abreast of the state of the law in his state on this subject.

(b) With his fellow physicians and with lay person involvement and input, develop some standards as to what should normally be disclosed to the patients in procedures or treatments which are frequently used.

(c) Reduce these to writing and use the writing as a basis for a written consent form to be discussed with and signed by the patient with the signature to be witnessed if possible by a witness who states that in his opinion at the time of signing the patient is fully competent and not under the influence of drugs.

(d) Spend some time with your patient developing a personal rapport as well as explaining to him what is necessary to get his informed consent.

Footnote: In this paper I have deliberately not inserted copious citations as I wished to discuss the subject matter generally while at the same time carefully pointing out that the law of each state may be a little different from the others. If you desire detailed legal citations I would refer you to the Legal Research Department, Office of the General Counsel, American Medical Association, which maintains excellent research and material in this field. I also refer you to two fine treatises: *Medical Malpractice* by David M. Harney (1973) Allen Smith Company, Indianapolis, Indiana 46202, and *Medical Malpractice Law* by Angela Roddey Holder (1975), John Wiley & Sons, Inc., New York, N.Y. I freely acknowledge my debt to all three of these sources which I have found most helpful.

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Opinion & Dialogue

Should a specially prepared package insert be made available to patients?

Dr. Alexander M. Schmidt
Commissioner,
Food and Drug
Administration

The idea of a so-called patien package insert has been around fo a long time. Many physicians alrea use written instruction sheets to provide patients with information about the drugs they are taking. Ar some physicians give verbal instru tions; but in too many instances these are what I call eye-glazing ex ercises. I have seen patients sit wi glazed eyes listening to a rapid-fire lecture by a hurried physician who has 20 people out in his waiting room. These patients aren't given sufficient understanding and there fore do not follow instructions. So I think the idea of an official packag insert for patients is a good one. Perhaps we should really think of this kind of information simply as extension of drug labeling.

The benefits of patient involvement

Many physicians may not rea ize how frequently a patient obtai his drug information from Aunt Tillie or the next door neighbor. An this information is almost always bad or irrelevant to the case at han Furthermore, the incentive to go along with a prescribed program is slim if the only reading matter the patient receives, along with his pre scription, is a bill.

As an educator I am impress by the principle that the best way t get someone to do something is to involve him in the process. So the

Dr. James H. Sammons
Executive Vice President
of the American
Medical Association

I think there are advantages a well as some real disadvantages in a patient package insert. When you begin to use semi-medical or medi cal terms to describe complication or possible sequelae of disease or treatment, you may frighten the pa tient—particularly since the more highly sophisticated patient is not the one who is going to read the in sert. The patient who will read it is the one most susceptible to fright and confusion by the language.

On the positive side, a packa insert will probably give the patien better insight into why he is being treated the way he is, and it may give the physician a little bit more time. But it does not remove from the physician the need or obligatio to explain the insert.

Some pitfalls in the inclusion of side effects

Certainly a patient should be warned of the possibility of serious side reactions—to know what the real dangers are. But it doesn't do bit of good to indicate that a patien on oral penicillin may develop a rash, itching, or a drop in blood pressure. Or that he may faint. I think the real danger is that fright engendered by the insert may pos sibly outweigh the potential good.

ain purpose of drug information r the patient is to get his cooperaon in following a drug regimen.

reparation and distribution of atient drug information

We would hope to amass inforation from physicians, medical cieties, the pharmaceutical indusy and centers of medical learning. e ultimate responsibility for unirm labeling must, however, rest ith the Food and Drug Administrain. There is nothing wrong with is agency saying, "this informaon is generally agreed upon and erefore it should be used," as long our process for getting the inforation is sound.

Distribution of the information a problem. In great measure it uld depend on the medication in estion. For example, in the case an injectable long-acting progesrone, we would think it mandatory issue two separate leaflets—a ort one for the patient to read bere getting the first shot and a long e to take home in order to make a cision about continuing therapy. this case, the information might put directly on the package and t removable at all. But for a mediion like an antihistamine this formation might be issued sepately, thus giving the physician the tion of distribution. This could eserve the placebo use, etc.

It is in the distribution of patient information that the pharmacist may get involved. As professionals and members of the health-care team and as a most important source of drug information to patients, pharmacists should be responsible for keeping medical and drug records on patients. It is also logical that they should distribute drug information to them.

Realistic problems must be considered

We have to expect that the introduction of an information device will also create new problems. First, how can we communicate complex and sophisticated information to people of widely divergent socioeconomic and ethnic groups? Second, what will we say? And third, how can we counteract the negative attitude of many physicians toward any outside influence or input? Hopefully the medical profession will respond by anticipating the problems and helping to solve them. Assuming we can also solve the difficulty of communicating information to diverse groups throughout the United States, our remaining task will be the inclusion of appropriate material.

What information is appropriate?

In my opinion, technical, chemical and such types of material should not be included. And there is no point in the routine listing of side effects like nausea and vomiting which seem to apply to practically all drugs, unless it is common with the drug. However, serious side effects should be listed, as should information about a medication that is potentially risky for other reasons.

Other pertinent information might consist of drug interactions, the need for laboratory follow-up, and special storage requirements. What we want to include is information that will help increase patient compliance with the therapy.

Positive aspects of patient drug information

Labeling medication for the patient would accomplish a number of good things: the patient could be on the lookout for possible serious side effects; his compliance would increase through greater understanding; the physician would be a better source of information since he would be freer to use his time more effectively; other members of the health-care team would benefit through patient understanding and cooperation; and, finally, the physician-patient relationship would probably be enhanced by the greater understanding on the part of the patient of what the physician is doing for him.

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ly the doctor can remove that fear 20 or 30 minutes of conversation.

I'm not suggesting that we thhold any information from the tient because, first of all, it would totally dishonest and secondly, it uld defeat the very purpose of the sert. I do think that a patient on the rth control pill should know about incidence of phlebothrombosis.

If you're going to tell a patient incidence of serious adverse retions, then you have to tell him at a concerned medical decision s made to use a particular mediion in his situation after careful nsideration of the incidence of mplications or side effects.

motionally unstable patients pose special problem

There are patients who, beuse of severe emotional problems, uld not handle the information ntained in a patient package inrt. Yet if we are going to have a ckage insert at all, we just can't ve two inserts. I think we might mply have to tell the families of ese patients to remove the insert om the package.

gal implications of the patient ckage insert

Just what effect would a patient package insert have on malpractice? We could try to avoid any legal implications by pointing out that the physician has selected a particular medication because, in his professional judgment, it is the treatment of choice. For instance, you can't tell everyone taking antihistamines not to work just because a few patients develop extreme drowsiness which can lead to accidents. And what about the very small incidence of aplastic anemia rarely associated with chloramphenicol? If, based on sensitivity studies and other criteria, we decide to employ this particular antibiotic, we do so in full knowledge of this serious potential side effect. It's not a simple problem.

How do we handle an insert for medication used for a placebo effect?

With rare exceptions, physicians no longer use medications for a placebo effect. This question does raise the issue of how a patient may react to receiving a medication without a package insert.

Preparation of the package insert

The development of the insert ought to be a joint operation between physicians, the pharmaceutical industry, the A.M.A. and the F.D.A.

I view the A.M.A.'s role as a coordinator or catalyst. It is the only organization through which the profession as a whole, irrespective of specialty, can speak. It has relatively instant access to all the medical expertise in this country. And it can bring that professional expertise together to ensure a better package insert. The A.M.A. can work in conjunction with the industry that has produced the product and which is ultimately going to supply the insert.

I don't think we should rely, or expect to rely, on legislative committees and their nonprofessional staffs to make these decisions when it is perfectly within the power of the two groups to resolve the issues in the very best American tradition—without the government forcing us to do it. I think the F.D.A. has to be involved, but I'd like them to become involved because they were asked to become involved.

Pharmaceutical Manufacturers Association
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*First Health and Nutrition Examination Survey, DHEW Pub. No. (HRA) 74-1219-1, National Center for Health Statistics, Rockville, Maryland. (This report indicates that approximately 95% of the children 1-5 years old had iron intakes *below* the standard set by the Food and Nutrition Board of the National Academy of Sciences.)

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Sorbitol	3.5 gm
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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

November 16, 1975

A regular meeting of the Board of Trustees was held on Sunday, November 16, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Meeting with Commissioner of Health ... Noted that the Executive Committee had met with Commissioner of Health Finley on October 28, 1975, and presented MSNJ's official position on PL 93-641 (see Board minutes 10/19/75, *JMSNJ* 72:1053, December 1975). Dr. Finley concurred in the approach and assured the Society that everything possible will be done to maximize local input within the bounds of the legislation. She emphasized that physicians must become active in their local areas or recognize that they will be abdicating a responsibility which will be assumed by "vested interest groups."

Medicaid ... Noted that the Executive Committee had met with Commissioner of Institutions and Agencies Klein and the Director of the Division of Medical Assistance (Mr. Reilly) who admitted that budgetary cuts will spell the demise of Medicaid at the end of the current fiscal year. However, legislation to prevent future cuts and restore the rollbacks of July 1975 will be pursued after the election and MSNJ support, which was assured, was requested.

Psychiatric Hospitals ... Received a report from the Executive Committee that the conclusion had been reached by the Director of the Division of Mental Health and Hospitals that no one person could be expected to discharge the responsibilities of chief executive officer and chief medical officer of a State psychiatric hospital, as was recommended by the Department of Institutions and Agencies.

New Jersey Hospital Association ... Received the following report of the Executive Committee's meeting with the New Jersey Hospital Association.

(1) *First Assistant in Surgical Procedures* — Since there is neither a statute nor a regulation requiring a second qualified physician in major surgical procedures, and since such a requirement in many areas of the State would prove unworkable and impractical, it was the unanimous decision to advise the State Board of Medical Examiners that this situation should be addressed by the individual hospitals in conformity with JCAH standards.

... Directed that the Chairman appoint an *ad hoc* committee composed of physicians practicing involved specialties to study the subject of assistants in surgical procedures, considering the following points discussed by the Board: (a) the State Board of Medical Examiners has yet to determine what is considered a major and a minor surgical procedure, (b) in cases involving neurosurgical procedures a requirement of a second qualified physician would be impossible of compliance because of the small number of neurosurgeons practicing in New Jersey, and (c) the New Jersey Hospital Association's opinion is that a policy regarding use of a second qualified physician in major surgical procedures should be the responsibility of the medical staffs and boards of trustees of the individual hospitals.

(2) *Application Forms for Present and New Hospital Staff Members* ... Noted that, as a consequence of Resolution #28 (MSNJ House of Delegates, 1975), the New Jersey Hospital Association will notify its membership that forms incorporating blanket releases of patient and medical records are not endorsed by that Association or by MSNJ, and that a copy of this resolution (#28) will be presented to the AMA House of Delegates by the New Jersey delegation.

Sterilization Procedures under Medicaid ... Directed that a communication be directed to

Medicaid officials pointing out that proposed changes in regulations to require prior authorization for sterilization procedures on persons under age 21 would create a category of "second-class citizens" which MSNJ has and will continue to oppose, and that there are presently specific statutes protecting the rights, for abortions, of women under age 21.

Marihuana . . . Approved the following recommendation from the Council on Mental Health which had been offered by the Committee on Drug Abuse:

That The Medical Society of New Jersey not condone marihuana's use as a harmless substance until such time that credible research has established the fact that marihuana use is not dangerous to physical and mental health.

Emergency Medical Care . . . Approved the following recommendation from the Committee on Emergency Medical Care:

That notification be sent from MSNJ to all school boards in New Jersey recommending that a cardiopulmonary resuscitation course be taught in their senior high schools.

Note: The school boards will not be notified of this recommendation until the Board has an opportunity to review a program for implementing the proposed course, which will be supplied by Dr. Karel.

Long Range Planning and Development . . . Approved the following recommendations from the Committee on Long Range Planning and Development:

1. That the Standing Committee on Revision of Constitution and Bylaws be instructed to amend the Bylaws by deleting item (1) of Chapter XI, section 2(b) from the eligibility requirements (citizenship or declaration of intent) for membership in the Society.

2. That the Standing Committee on Revision of Constitution and Bylaws be instructed to prepare an amendment to the Bylaws which would allow for open sessions of the House of Delegates; the House could, on proper motion, vote to enter into executive session.

AMA Delegates and Alternates . . . Tabled a recommendation from the Committee on Long Range Planning and Development to have an amendment to the Bylaws prepared to permit newly-elected delegates and alternates to begin their terms on January 1 or July 1, in view of the fact that the AMA, which had adopted such a resolution at the June 1975 meeting, will reconsider that action at the 1975 Clinical Conference.

Public Relations . . . Approved the following recommendations from the Council on Public Relations:

1. *Improved Public Relations and Legislative Programs*

(a) That the council on Public Relations launch a campaign to insure total coverage of major medical society activities and move in the following directions: ongoing public image program with respect to professional liability, Medicaid, and delivery of health services; the new physician's interest in MSNJ, and physician participation in MSNJ.

(b) That the firm of Paolin and Sweeney be retained for one year to carry on this accelerated public relations program.

2. *Golden Merit Award Ceremony*

(a) That the Golden Merit Award Ceremony be separated from the Sunday session of the House of Delegates; that it be held at 12 noon on Saturday; and that the membership be invited.

(b) That the Golden Merit Award Ceremony be re-evaluated in view of the facilities at the Cherry Hill Hyatt House.

3. *Continuing Projects*

(a) Publication and distribution of *Junior Health Hints* to schools and public libraries, *Membership Newsletter*, and *Periodic Newsletter* to cooperating agencies/individuals, as required.

(b) Preparation and publication of special news releases as required in furtherance of the Society's activities, including the eye health screening program, the annual meeting, child safety week, and selected official programs.

(c) Press releases and information center at annual meeting.

(d) Bestowal of Golden Merit Award.

(e) Orientation programs for new members under sponsorship of component societies.

(f) Encouragement of statewide emergency medical care coverage with reference to the "Basic Concepts Underlying the Provisions of Professional Medical Care."

(g) Future Physicians' Clubs.

(h) Voluntary blood donations.

(i) Radio broadcasts under auspices of component medical societies.

(j) Medical TV programs.

(k) Diabetes Detection Month.

(l) Placement Service.

(m) Immunization Action Month.

(n) Physician awards for community services: A. H. Robins Award and Sheen Award.

Social Security Number as Universal Identifier . . . Voted to support a resolution from the Medical Society of the State of New York opposing the universal use of social security numbers as identifiers.

United Nations Resolution on Zionism . . . Voted to submit the following emergency resolution to the AMA Clinical Convention condemning the action of the United Nations General Assembly of equating Zionism with racism and racial discrimination:

Whereas, the United Nations General Assembly recently passed a resolution equating Zionism with racism and racial discrimination; and

Whereas, the United States Ambassador to the United Nations has condemned this act as a deceit fostered on the world which undermines the principles of the United Nations and will lead to its destruction; now therefore be it

Resolved, that the American Medical Association endorse the position of Ambassador Moynihan and the United States' Government in condemning this action of the United Nations General Assembly in regard to Zionism; and be it further

Resolved, that the American Medical Association communicate its support of the United States' position to Ambassador Moynihan, President Ford, Secretary Kissinger, the United States Congress, and the press.

Free-Standing Ambulatory Care Facilities . . . Agreed to review a position statement on free-standing ambulatory care facilities which has been adopted by the New Jersey Hospital Association and present their findings for discussion at the December 1975 meeting of the Board.

Obligatory Consultation on Blue Shield Elective Surgical Patients . . . Directed that Commissioner of Insurance Sheeran be invited to attend the December meeting of the Board so as to develop a better understanding of the Commissioner's opinion on obligatory consultation on Blue Shield elective surgical patients.

Definition of Death . . . Empowered the President to appoint a committee to study the problem of definition of death and its circumstances.

New Regulation for Controlled Dangerous Substances

The following amendment to NJCA 8:65-7.8 has been adopted by the Department of Health, effective November 18, 1975:

A practitioner shall not prescribe or dispense a Schedule II controlled substance to an individual patient in excess of 120 dosage forms or a 30-days supply, whichever is the lesser amount.

The need for such a regulation became apparent in the course of auditing Controlled Dangerous Substance prescriptions in pharmacies when it was observed that prescriptions for Schedule II substances (Demerol, Dexedrine, Seconal, Percodan, and others) were written to dispense quantities of 300, 500, and 1,000 of these potent drugs to an individual patient. A Schedule II substance prescription may be filled and dispensed only once. Good medical practice dictates that patients receiving such medication should be seen and evaluated at least monthly to determine if there are any side effects from the use of the drug and if its continued use is warranted.

The intent of the regulation is to ensure an adequate supply of these substances for accepted medical use and to control the number of dosage forms available to patients to prevent misuse or abuse, life-threatening situations, or illegal traffic in the drugs.

NEED
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SEE —

PAGE 1
PAGE 4
PAGE 90

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Osteoporosis

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Methyltestosterone	1.25 mg
L-lysine	100 mg
Nicotinic Acid	12.5 mg
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Vitamin A	2,500 U.S.P. Units
Vitamin D	250 U.S.P. Units
Thiamine Mononitrate	2.5 mg
Riboflavin	2.5 mg
Ascorbic Acid	25.0 mg
Folic Acid	0.1 mg
Vitamin B-12	1.5 mcg
Methionine	12 mg
Choline Bitartrate	15 mg
Inositol	10 mg
Calcium Pantothenate	2.5 mg
Pyridoxine	0.25 mg
Copper (from Copper Sulfate)	0.25 mg
Zinc (from Zinc Oxide)	0 25 mg
Iodine (from Potassium Iodide	0.075 mg
Calcium (from Dicalcium Phosphate	72.5 mg
Phosphorus (from Dicalcium Phosphate)	55 mg
Potassium (from Potassium Sulfate)	2.5 mg
Manganese (from Manganese Sulfate)	0.5 mg
Magnesium (from Magnesium Sulfate)	0.5 mg

ACTION AND USES — DOSAGE: 1 tablet after breakfast and supper, or as required. In females, 3-week courses of therapy are recommended followed by a 1-week rest period Withdrawal bleeding may occur during the rest period **PRECAUTIONS:** Administer cautiously to female patients who tend to develop excessive hair growth or other signs of masculinization **CONTRAINDICATIONS:** Patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast, genital tract, or prostate, and in patients with a familial tendency to these types of malignancy **AVAILABLE:** Bottles of 100 and 500 tablets Rx only

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Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

The Board of Trustees of the Foundation extends its greetings to you for 1976, the Bicentennial year. The stance of organized medicine against the onslaught of external forces brings to mind Concord, Lexington, and the Minutemen. Since this is also a Presidential election year, we can expect an increase in public declarations over the problems of "health" care. There will be more suggested solutions than there are problems. We will continue to focus our attention on what we consider to be the most important issues, including:

• Adequate funding for genuine peer review activity. The PSROs which are ready to demonstrate their effectiveness should be given the money to do the job.

• Adequate funding for medical services on the state level. The fiscal restraints on the State Medicaid agency, for instance, may produce widespread cutbacks in services. While the providers will be inadequately reimbursed, the patients will be the ones who will suffer the most.

• The development of Health Systems Agencies, under the Health Planning and Resources Development Act (Public Law 93-641). The implementation of this legislation will need close surveillance by the medical community, which appears to be paying less attention to it than other agencies.

• The Health Maintenance Organizations (HMOs), which are designed to change the patterns of delivery of care. Of particular interest to us is the concept of Independent Practice Associations (IPAs), which should be of interest to physicians, because it preserves the fee-for-service method of practice by doctors in their offices, on a capitated basis with the physician members at risk.

• The debilitating effects of the medical liability problem. Of all the forces affecting medical practice, this is the most stifling.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY — Ramon Kasilag, M.D., 44 Barr St., Regina, Saskatchewan, Canada. Santo Tomas, 1960. Board eligible. Group, partnership, or solo. Available (call 201-664-4802 — Dr. A. Sobel — for information).

CARDIOLOGY — Howard C. Rothman, M.D., 435 East 70th Street, New York 10021. Cincinnati 1970. Board certified (medicine). Group or partnership. Available July 1976.

Ihrahim A. Sarris, M.D., 6511 Landover Road, Apt. 204, Cheverly, Maryland 20785. El-Azhar (Egypt) 1970. Board eligible. Group, partnership, associate, solo. Available July 1976.

FAMILY PRACTICE — Daniel M. Blumkin, M.D., 330 Norwalk Road, Springfield, Illinois 62704. Rochester 1973. Group. Available July 1976.

Hasmukh P. Patel, M.D., 1/1B, 21 Walnut Road, Glen Cove, New York 11542. B.J. Medical (India) 1970. Group partnership. Available July 1976.

Michael G. Maroldo, M.D., 304 Elsmere Street, Wilmington, Delaware 19804. Wayne State 1974. Group or partnership. Available July 1976.

Renato T. Diaz, M.D., 21 Walnut Rd., Apt. II-2A, Glen Cove, New York 11542. University of the East (Philippines) 1966. Board eligible. Group. Available July 1976.

GENERAL PRACTICE — Andrew Larkin, M.D., 4535 Larchwood Ave., Philadelphia 19143. Harvard 1972. Group or partnership. Available July 1976.

INTERNAL MEDICINE — Bernard M. Aaron, M.D., 200 Flower Drive, Lexington Park, Maryland 20653. SUNY — Downstate 1969. Subspecialty, gastroenterology. Board certified. Group or partnership as gastroenterologist. Available July 1976.

John E. Madsen, Jr., M.D., 135 Florence Road, Apt. 2C, Branford, Connecticut 06405. Cornell 1968. Subspecialty, gastroenterology. Board certified. Partnership, group, or hospital-based practice. Available.

K. S. Lakshmi Narayanan, M.D., 27300 Parkview Blvd., Apt. 7308, Warren, Michigan 48092. Stanley (India)

1970. Subspecialty, gastroenterology. Board eligible. Group or partnership. Available July 1976.

Dennis Gort, M.D., 822 President Street, Apt. 4, Brooklyn, New York 11215. SUNY Downstate 1972. Subspecialty, pulmonary medicine. Board certified. Group or institutional. Available July 1976.

Wilhelmina M. Cruz, M.D., 495 East Seventh Street, Apt. 6D, Brooklyn, New York 11218. Santo Tomas (Manila). Subspecialty, nephrology. Board eligible. Dialysis or hypertension program with opportunity for private practice in group, partnership or solo. Available.

Kevork Cileli, M.D., 1311 Palisade Avenue, Fort Lee 07024. Ankara 1957. Board eligible. Partnership or solo. Available August 1976.

Jung-San Shen, M.D., 377 S. Harrison Street, Apt. 16-W, East Orange 07018. Kaohsiung Medical (Taiwan) 1968. Board eligible. Subspecialty, pulmonary diseases. Solo, group, or hospital. Available July 1976.

Manoj Desai, M.D., 48-56 44th Street, Woodside, New York 11377. B.J. Medical (India) 1969. Board eligible. Subspecialty, oncology. Group, partnership, or hospital. Available July 1976.

Chau-Fe Huang, M.D., 245-01 75th Avenue, Glen Oaks, New York 11004. Chungshan Medical (Canton, China) 1966. Board certified. Subspecialty, cardiology. Group or partnership. Available July 1976.

Daniel Markowitz, M.D., 785 Skynob Drive, Ann Arbor, Michigan 48105. Einstein 1971. Board certified. Subspecialty, pulmonary diseases. Group, partnership, or hospital. Available July 1976.

William W. Tan, M.D., 250 Mt. Vernon Place, Apt. 2-H, Newark 07106. Indonesia 1964. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available July 1976.

Leslie C. Feigin, M.D. 361 Park Ave., Apt. B2, Orange, N.J. 07050. CMDNJ 1973. Board eligible. Group or partnership in northern New Jersey. Available July 1976.

Martin W. Isenman, M.D., 758 Elmwood Terrace, Rochester, New York 14620. NYU (Downstate) 1975. Subspecialty, rheumatology. Board certified. Group or partnership. Available July 1976.

Anderson Tsai, M.D., 121 Congress St., Brooklyn 11201. Kaohsiung (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976 (212-237-1338).

OBSTETRICS AND GYNECOLOGY — Stephen M. Woodruff, M.D., 1426 Avon Place, Pittsburgh, Pennsylvania 15221. Jefferson 1970. Board eligible. Group or partnership in mid or southern New Jersey. Available July 1976.

Fa-Tsair Shieh, M.D., 412 West 115th Street, Apt. 2-W, New York 10025. China (Taiwan) 1970. Board eligible. Group, partnership, or solo. Available July 1976.

Jiunn S. Cheng, M.D., 1757 East Raleigh Court, Apt. 168-A, Ocean, New Jersey 07712. Kaohsiung Medical (Taiwan) 1964. Board eligible. Solo or group.

Choon-Won Koo, M.D., 383 Lexington Ave., Youngstown, Ohio 44504. Chonnom University 1967. Solo or group. Available July 1976.

Thomas P. McCormack, M.D., 33 Highland St., Apt. 5-F, New Britain, Conn. 06052. Georgetown 1970. Board eligible. Group or partnership.

OPHTHALMOLOGY — Richard L. Tax, M.D., 1605 Park Towne Place, Philadelphia, Pennsylvania 19130. Cornell 1970. Board eligible. Group, partnership, or solo. Available June 1976.

Alan L. Schein, M.D., 119 Upland Terrace, Bala-Cynwyd, Pennsylvania 19004. Jefferson 1969. Board eligible. Group or partnership. Available July 1976.

Ghulam Dastgir, M.D., 614 Troy Avenue, Brooklyn, New York 11203. King Edward, Lahore (Pakistan) Board eligible. Group or partnership. Available July 1976.

ORTHOPEDIC SURGERY — Alfred G. Krebs, M.D., 666 Massachusetts Avenue, Acton, Massachusetts 01720. Jefferson 1969. Board eligible. Group, partnership, or solo. Available July 1976.

PEDIATRICS — Lawrence Schaffer, M.D., 3726 Lankenau Road, Philadelphia, Pennsylvania 19131. Einstein 1971. Group, partnership, or solo. Available July 1976.

M. Patricia Fiorentino Baran, M.D., 7603 Foxhall Lane, Richmond, Virginia 23228. SUNY Downstate 1972. Board eligible. Group. Available July 1976.

John Motley, M.D., 103 Poplar Lane, Lexington Park, Maryland 20653. Jefferson 1971. Board eligible. Group or partnership (willing to purchase). Available July 1976. Telephone (301) 862-3525.

Waled H. Chowdhury, M.D., 53 Linden Avenue, Irvington 07111. Dacca Medical (Bangladesh) 1970. Board eligible. Solo or partnership. Available July 1976.

R. Natesan, M.D., 85 Manor Drive, Apt. 3C, Newark 07106. Madurai 1965. Board eligible. Group, partnership, associate, solo. Available July 1976.

Surendra C. Sheth, M.D., 900-17-B, Coop City Blvd., Bronx, New York 10475. Baroda 1970. Board eligible. Group or partnership. Available July 1976.

Jack C. Wu, M.D., Anderson Hospital and Tumor Institute, Houston, Texas 77025. Kaohsiung (Taiwan) 1968. Subspecialty, hematology and oncology. Board eligible.

Peri Kamalakar, M.D., 167 Crestmount St., Tonawanda, New York 14150. Buntur (India) 1967. Subspecialty, hematology and oncology. Board certified (pediatrics). Group, partnership, associate, solo. Available September 1976.

PLASTIC SURGERY — Mark B. Handler, M.D., 2417 Hempstead Road, Toledo, Ohio 43606. Dalhousie (Nova Scotia) 1969. Board eligible. Partnership or group. Available July 1976.

RADIOLOGY — Robert J. Baran, M.D., 7603 Foxhall Lane, Richmond, Virginia 23228. SUNY Downstate 1972. Board eligible. Group or hospital based. Available July 1976.

SURGERY — Dara Vahid, M.D., 200 Carman Avenue, #12D, East Meadow, New York 11554. University of Tehran (Iran) 1964. Board eligible. Group or partnership. Available July 1976.

Elmer D. Geniblazo, M.D., 184 Estaban Drive, Camarillo, California 93010. Far Eastern 1962. Group, solo — will consider general practice. Available November 1975.

Narasimha S. Rao, M.D., 9601 Ashton Road, Apt. N-5, Philadelphia 19114. Osmania (India) 1963. Board eligible. Subspecialty, vascular surgery. Group, partnership, solo, or associate. Available July 1976.

J. Gerard Crowley, M.D., 333 East 34th Street, New York 10016. Dublin (Ireland) 1965. Board eligible. Subspecialty, peripheral vascular surgery. Partnership. Available July 1976.

Walid A. Khuri, M.D., 200 Washington Square, Richlands, Virginia 24641. American University (Beirut) 1966. Board certified. Group, partnership, associate, solo, hospital. Available January 1976.

William Doscher, M.D., 2500 Johnson Ave., Riverdale, New York 10463. SUNY 1968. Board certified. Subspecialty, vascular surgery. Group, partnership, or hospital. Available July 1976.

Gabriel D. Cacuci, M.D. 5104 Skillman Ave., Woodside, New York 11377. Cluj University (Romania) 1968. Board eligible. Group, partnership, associate, solo. Available.

Luis A. Barranco, M.D., Calle Jobos, Ponce, Puerto Rico 00731. Madrid 1956. Board eligible. Group, partnership, hospital. Available.

UROLOGY — Bernard Schaaf, M.D., 1000 Langworthy, Dubuque, Iowa 52001. Washington University (St. Louis) 1962. Board certified. Partnership or group. Available March 1976.

Kasturi G. Shanker, M.D., 101-4 Van Buren Road, Voorhees 08043. Madras (India) 1960. Group, partnership, solo, or hospital-based. Available July 1976.

Richard A. Fraser, M.D., 15 Rose Loop, Fort Leavenworth, Kansas 66027. St. Louis 1969. Board eligible. Group, partnership, or academic. Available July 1976.

Noel Tak-Cheung Hui, M.D., 5715 S. Drexel, Apt. 305, Chicago 60637. National (Taiwan) 1970. Board eligible. Solo, group, associate. Available July 1976.

Kwang Hoon Kim, M.D., 1935-17A Eastchester Rd., Bronx 10461. Seoul National 1969. Board eligible. Solo, partnership, group. Available August 1976.

Chester I. Stone, M.D., 40 Morrow Ave., Scarsdale, New York 10583. CMDNJ 1971. Board eligible. Partnership, group. Available July 1976.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Cost aside, the overriding aspect of medical and dental education in the mind of the general public throughout the nation is not the "what" but the "who." Who gets into medical and dental school? Why can't my son or daughter, niece or nephew, grandchild, or young friend or neighbor?

The same questions are asked year after year, and they will be asked again year after year in the foreseeable future. Nothing in the stars presages the kind of improvement in openings at our schools, or at any of the others, that would close the gap between 19,700 places for entering medical and dental students and over 55,000 applications.

At CMDNJ, the comparable numbers this year were 306 places to be filled from more than 6,000 applicants. The nature of the 306 is of interest, especially within the profession, and so I would like to share with you an analysis of who they are, whence they came, and what qualifications they possess.

The 306 students who began studies this year in CMDNJ's four schools have diverse social and economic backgrounds and academic preparation. Common to each, however, is the sincere desire to pursue a career in the health sciences and the judgment of CMDNJ's admissions' committees that they possess the ability to become fully-qualified physicians, dentists, and biomedical scientists.

Twenty-five percent of the new students are women; 21 percent are members of minority groups; nearly 95 percent are residents of New Jersey with representation from all counties. They have different types of undergraduate education, from community colleges to Ivy League universities. Nearly half are graduates of New Jersey colleges, with Rutgers — The State University the favored institution. Other New Jersey institutions with two or more alumni in the entering class are Fairleigh Dickinson University, St. Peter's College, Seton Hall

University, The College of St. Elizabeth, William Paterson College, Stevens Institute of Technology, Georgian Court College, and Upsala College. Out-of-state schools attended are as close as New York and Pennsylvania and as distant as the University Dhal Singh, India. Among the more popular out-of-state schools are Harvard, Johns Hopkins, Cornell, Hunter College and Columbia.

The great majority of the members of our newest class hold a baccalaureate (B.S. or B.A.) degree, although a small percentage of highly-qualified students are admitted before completing their undergraduate work. About ten percent have advanced degrees, mainly in scientific areas, with seven of them holders of Ph.D.'s.

The students who made it into CMDNJ's four schools displayed above-average academic performance, their undergraduate grade point averages fall between 3.4 and 4.0 — somewhat higher than their immediate predecessors. The class that entered in 1974 fell mostly into the 3.2 to 3.8 range; in 1973 it was between 2.8 and 3.6.

The admissions' committee must also consider what makes up the cumulative average. A student with a lower overall average, for example, may have outstanding science grades, which in most cases indicates a specific aptitude that would help him or her succeed in medical or dental school.

The new class' performance on the admissions tests was above the national mean, with students entering CMDNJ-New Jersey Dental School falling mainly between the 4 and 6 scores on the Dental Admissions Test (DAT), for which the national average is 4. Students beginning studies at the CMDNJ-New Jersey Medical School and the CMDNJ-Rutgers Medical School scored mainly between 500 and 700 on the Medical College Admissions Test (MCAT).

The parents of CMDNJ's entering students range from professionals to manual laborers and their educational levels range from elementary school to post-doctoral training. The students themselves tend to be somewhat older than those of previous entering classes. Many have after-college work experience, a factor that could indicate an added degree of maturity.

A student's commitment to pursue a career in the health professions does not appear to be traceable to a family interest in the field. Only 23 entering students have fathers who are in health care, including thirteen physicians, five dentists, and a sprinkling of other health-related fields, such as dental technology, optometry, pharmacy, and hospital administration. The majority of fathers have careers in business, professions unrelated to health care, and labor, with engineering the single largest classification. This has been true generally for each of the classes currently enrolled in the school. An interesting exception has been female students, who are much more likely to be following in the footsteps of one or both of their parents.

Nearly 95 percent of the total enrollment of CMDNJ comes from New Jersey. The current first-year class is no exception, with 111 New Jersey residents of 119 at CMDNJ-New Jersey Medical School and 93 of 111 at CMDNJ-Rutgers Medical School; 59 of 64 at CMDNJ-New Jersey Dental School, and all 12 at CMDNJ-Graduate School of Biomedical Sciences. New Yorkers comprise the second largest group in the class, with 25 students from that state. Florida, Illinois, Texas and Louisiana are also represented in the class. There are no foreign students in the first-year classes.

Enrollment of women at CMDNJ has been steadily increasing since 1969, when there were only 22 in all classes at the four schools. Women now account for nearly one-fourth of CMDNJ's total enrollment, with 261 among 1,096 places. In 1974, there were 222 women among 1,044 students; in 1973, 178 of 957. Despite the increases, however, the percentage of women applying to professional schools still remains relatively small. Applications from female students to the two medical schools account for a mere one-eighth of the total, and at the dental school, barely eleven percent. The problem is further complicated by stiff competition between schools for qualified women students. CMDNJ actively recruits women and qualified minority students, particularly from among the economically disadvantaged and the inner-city and rural residents who are traditionally underrepresented in the professions. These groups make up about 20 percent of the student body.

Therapeutic Drug Information Center*

The Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associated Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.S., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m. — telephone (212) 622-8989 or 636-7535. The following are questions and answers handled by the Center recently.

1. When switching a patient from the oral to intramuscular route of phenytoin, should the dosage be altered?

The intramuscular (IM) route of phenytoin (Dilantin), although not the parenteral route of choice, is indicated for certain clinical situations.[1] Thus, it is sometimes necessary to switch a patient controlled on oral phenytoin to the IM route of administration and back again. The question then arises whether a dosage adjustment should be made when changing these routes of administration.

It has been shown by some investigators that when phenytoin was administered by the IM route, in doses equivalent to that of previous oral therapy, an abrupt fall of plasma levels occurred. However, one crossover study which utilized multiple daily doses of oral and IM phenytoin showed no significant differences in the serum levels obtained.[2]

Serrano, *et al.*[3] reported a decline in plasma phenytoin levels in seven of eight patients switched from oral to an equal IM dose. In three patients blood levels dropped to levels inconsistent with adequate seizure control. Within 48 to 72 hours following resumption of oral administration, plasma levels returned to the pre-intramuscular values and were followed in an additional three to five days by a rise of between 25 to 100 percent above the original pre-intramuscular (oral) plasma levels. One patient showed symptoms of phenytoin intoxication during this period.

Wilder, *et al.*[4] conducted a two-part study. In the first part conducted over 59 days, seven epileptic patients received a constant daily dose of phenytoin by the oral, then IM, and then oral routes for 20, 19, and 20 days respectively. After four to five days of IM therapy, plasma phenytoin levels fell to from 40 to 60 percent of the levels obtained during the prior period of oral administration. With the return to oral phenytoin, plasma levels rose significantly higher than during the initial oral period of administration. In the second part of the study, four different epileptic patients received their usual oral phenytoin dose for four to eleven days. They were then switched to IM phenytoin in amounts equal to 1.5 times the oral dose. After six to ten days, the patients were changed back to oral phenytoin in doses equal to one-half the original oral dosage. Plasma phenytoin levels remained relatively constant throughout, indicating that a dosage adjustment is necessary when switching routes of administration.

The decrease and then rise of serum concentrations of phenytoin, when shifting from oral to IM and back again, can be explained by certain properties of the drug. When phenytoin is injected IM, it precipitates into the injection site. This results in an apparent prolongation of the half-life due to the slow release of the drug. Furthermore, when patients are switched back to oral administration, significant quantities of the drug continue to be released from muscle. Thus the absorption of phenytoin from two sites (muscle tissue and gastrointestinal tract) most likely accounts for the elevation of plasma levels when oral administration is resumed.[5]

In conclusion, changes in absorption rates of phenytoin may create difficulties in maintaining therapeutic blood levels when switching from the oral to the IM route and back again. Thus, patients should have their serum phenytoin levels carefully monitored. It has been suggested when switching from oral to IM that the dose should be two times the initial oral dosage for the first five days of therapy. Following the return to oral administration, the dose during the first three to five days should be one-half of the initial oral dose.[3]

References

[1]Anon: Dilantin®. *Physicians' Desk Reference,* 29th Edition, Medical Economics, Oradell, New Jersey, 1975, p. 1122-1123.

[2]Cantu R C, *et al:* Comparison of blood levels with oral and intramuscular diphenylhydantoin. *Neurol* 18:782-784, 1968.

[3]Serrano E E, *et al:* Plasma diphenylhydantoin values after oral and intramuscular administration of diphenylhydantoin. *Neurol* 23:311-317, 1973.

[4]Wilder B J, *et al:* A method for shifting from oral to intramuscular diphenylhydantoin. *Clin Pharmacol Thera* 16:507-513, 1974.

[5]Anon: Physical properties as a basis of plasma level changes. *Drug Information Service Newsletter* 7:1. Alta Bates Hospital, Berkeley, California.

2. In response to numerous daily questions concerning beclomethasone dipropionate (Becotide®, Beconase®), the following information is provided.

During the past few years, beclomethasone dipropionate spray for oral inhalation (Becotide®) and beclomethasone dipropionate nasal spray (Beconase®) have been introduced in Europe, Canada, and South America. At the present time,

*This month's column was prepared by J. M. Rosenberg, Pharm.D., W. A. Simon, Pharm. D., P. Sangkachand, B.S., and H. Kirschenbaum, B.S., Brooklyn College of Pharmacy, LIU.

beclomethasone dipropionate spray for oral inhalation (BDOI) is under investigation in the United States by Schering Corporation. In a usual daily dosage of 400 mcg, BDOI has been shown to be effective in the prophylactic treatment of asthma; while in a similar dosage, beclomethasone dipropionate nasal spray (BDNS) has been shown to be effective for the prophylaxis and treatment of perennial and seasonal rhinitis. In therapeutic doses, BDOI and BDNS do not appear to suppress adrenal function or to produce the other systemic effects of steroid therapy.[1,4,5]

Johannessen, *et al.*[2] conducted a trial in 29 adult patients to determine the efficacy of BDOI in the treatment of steroid-independent adult patients with perennial bronchial asthma not controlled by hyposensitization, bronchodilators and cromolyn sodium. Once the patients were stabilized on BDOI, the bronchodilators and cromolyn sodium were reduced or phased out completely. The therapeutic responses were excellent in 14 patients, good in 11, and fair in 4.

Boe and Thulesius[3] conducted a double-blind cross-over study in 14 steroid-dependent patients with bronchial asthma. The effect of BDOI treatment was compared to a placebo-spray plus 5 mg of oral prednisolone daily. Of 14 patients, 12 could successfully be transferred to 400 mcg per day of BDOI maintenance therapy. In the BDOI group, subjective parameters such as cough, expectoration, and dyspnea were significantly reduced and pulmonary function parameters such as peak expiratory flow, forced expiratory volume, vital capacity, and arterial blood gases remained unchanged compared to placebo plus oral prednisolone.

The British Thoracic and Tuberculosis Association[4] conducted a double-blind study in 75 asthmatic patients who were starting long-term corticosteroid therapy for the first time. Inhaled BDOI and inhaled betamethasone valerate (BV), to our knowledge not under investigation at the present time in the United States, were compared to oral prednisone in the treatment of these patients. The authors found that BDOI and inhaled BV were just as effective as oral prednisone in controlling asthma. However, they noted that if severe exacerbations of asthma occurred, patients needed short-term, high-dosage courses of systemic corticosteroids as the inhaled drug could not reach its site of action in the presence of severe airways obstruction. They also found that a daily dose of 400 mcg of inhaled drug was approximately equivalent to 7.5 mg daily of prednisone.

Smith, *et al.*[5] carried out clinical trials in 69 patients with seasonal and perennial rhinitis. One study, a double-blind cross-over trial, carried out in 45 patients with perennial rhinitis utilized BDNS 50 mcg in each nostril four times a day or a placebo aerosol. Another study compared treatment with BDNS or a placebo in 24 patients with seasonal hay fever. Assessment of 45 patients with perennial rhinitis (the first trial) showed that 29 improved on BDNS, 11 improved on placebo aerosol, while five were unchanged throughout the trial. The results in the hay fever patients were that nine out of the 13 allocated to treatment with BDNS were improved while only two of the 11 patients allocated to the placebo aerosol were improved.

Although no major side effects attributable to BDNS have been reported, side effects of BDOI include sore or hoarse throat and occasionally oral or facial candidiasis, usually of a transient nature.[1-5]

In conclusion, BDNS and BDOI, both widely marketed outside the United States, appear to be effective in the treatment of bronchial asthma, perennial rhinitis, and hay fever. These preparations also may have advantages over oral prednisone in maintenance treatment; however, in the management of exacerbations, systemic corticosteroids will usually be needed as a supplement to inhaled therapy.[4]

References

[1]Williams M H: Corticosteroid aerosols for the treatment of asthma. *JAMA* 231:406-407, 1975.

[2]Johannessen H, *et al:* Beclomethasone dipropionate aerosol in adult steroid independent patients with perennial bronchial asthma. *Curr Thera Res* 18:559-567, 1975.

[3]Boe J, Thulesius O: Treatment of steroid-dependent asthma with beclomethasone dipropionate administered by aerosol. *Curr Thera Res* 17:460-466, 1975.

[4]British Thoracic and Tuberculosis Association: Inhaled corticosteroids compared with oral prednisone in patients starting long-term corticosteroid therapy for asthma. *Lancet* 2:469-473, 1975.

[5]Smith J J, *et al:* Intranasal beclomethasone dipropionate in allergic rhinitis. *Br Med J* 255, 1975.

3. Is there a relationship between clofibrate and gallstones?

Several studies suggest that the propensity for gallstone development may be increased during clofibrate (Atromid-S) therapy.[1,2,3] A recent report issued by the Coronary Drug Project indicates that coronary heart disease patients who were treated with clofibrate had a significant increase in 5 year incidence of gallstones when compared to a group treated with niacin and to a control group. (Of 1,017 patients treated with 1.8 gms. of clofibrate per day, 3.0 percent were found to have gallstones, whereas the incidence was 1.8 percent in 1,026 patients receiving 3.0 gms. of niacin per day, and 1.3 percent in 2,589 patients receiving placebo.)

A World Health Organization cooperative trial,[2] investigated the value of clofibrate for prevention of ischemic heart disease in healthy males 30-59 years of age. The design of the investigation involved dividing patients into 3 groups of equivalent sizes; 2 groups with serum cholesterol concentrations in the highest third of the distribution of cholesterol values, and one group whose serum cholesterol concentrations were in the lowest third of the distribution. One of the high-serum cholesterol groups received 1.6 gms. of clofibrate per day, and the other high-serum cholesterol group received a placebo. The low-serum cholesterol group was treated with a placebo. In the first group of 3,536 patients who received clofibrate, 33 patients or 0.93 percent underwent cholecystectomies; as opposed to group 2 (the high cholesterol-placebo group) where 0.34 percent or 12 of 3,552 patients underwent cholecystectomies. In group 3, (the low cholesterol-placebo group) 12 or 0.36 percent of 3,325 patients underwent cholecystectomies. These data are consistent with the hypothesis that clofibrate can induce gallstones or at least initiate symptoms of same.

Pertsemlidis and co-workers[3] have offered an explanation for this possible effect of clofibrate. They studied the effects of

both clofibrate and also of estrogen-progestin combination on fasting biliary lipids and cholic acid kinetics in man. In ten recently cholecystectomized women, all 7 patients treated with clofibrate and all 3 patients treated with an estrogen-progestin combination showed rises in concentrations of biliary cholesterol and reduction of bile acid levels. These changes resulted in bile supersaturated with cholesterol suggesting an increased lithogenicity of bile.

In conclusion, our search revealed studies that indicated a possible increased incidence of gallstones as indicated by cholecystectomies undertaken for same, in patients who received long-term clofibrate therapy. The official labeling for this product, however, makes no mention of this possible adverse effect.[4]

References

[1]Anon.: Clofibrate and niacin in coronary heart disease. *JAMA* 231:360-380, 1975.

[2]Cooper J, *et al:* Clofibrate and gallstones. *Lancet* 1:1083, 1974.

[3]Pertsemlidis D, *et al:* Effects of clofibrate and of an estrogen-progestin combination on fasting biliary lipids and cholic acid kinetics in man. *Gastroenterology* 66:565-573, 1974.

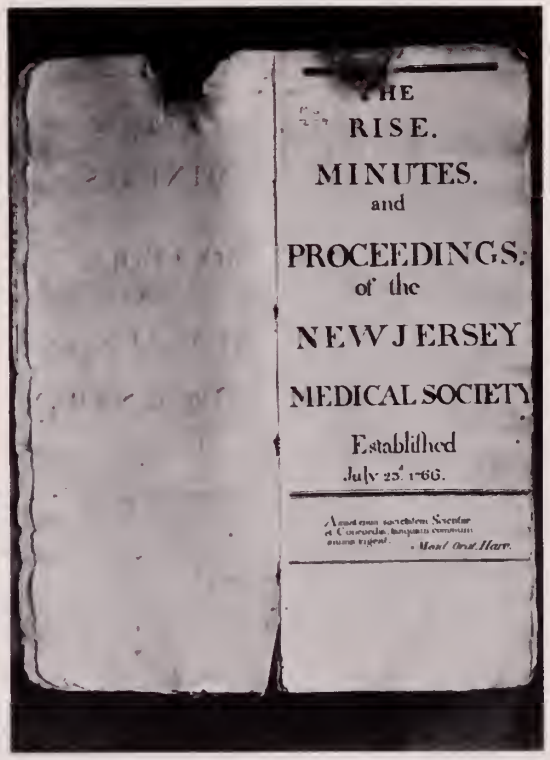
[4]Anon: Atromid-S®. *Physicians' Desk Reference*, 29th Edition, Medical Economics, Oradell, New Jersey, 1975, p. 580-581.

Bicentennial Medical Exhibit

"New Jersey Medicine in the Era of the American Revolution," an exhibition, will open at The New Jersey Historical Society in Newark on February 4. Prepared by the Society with the cooperation of Rutgers University Library and other lenders, the exhibition is cosponsored by the Academy of Medicine of New Jersey, The Medical Society of New Jersey, and the New Jersey State Museum.

The bicentennial exhibit will deal with private and military medicine during the period 1763 to 1787 and will treat such topics as physicians and medical societies (see illustration), hospitals, domestic medicine, and medical and surgical instruments. Centering around little-known manuscript sources from the collections of the Society and Rutgers University, the exhibition will include library and museum materials from institutions and private collectors throughout the state. Portraits, newspapers, broadsides, letters, orderly books, instruments, and even recipe books will be used in this exhibition to tell the story of New Jersey's medical role in the latter part of the eighteenth century.

The exhibition will remain at The Medical Historical Society (230 Broadway, Newark) until March 24 and then will travel to Rutgers University (April 1 to May 27), and subsequently to the State Museum in Trenton (June 5 to August 1).



The Medical Society of New Jersey Minute Book, 1766–1815. Original manuscript of minutes of the oldest state medical association in the nation. From the collections of The New Jersey Historical Society.

CLINICAL NOTE

Gallbladder Herniation Through the Foramen of Winslow

William E. Mattey, M.D., Henry Wujack, M.D., and Abdol Islami, M.D./Livingston*

Anomalous position of the gallbladder is a relatively uncommon finding.[1,2,4] Many abnormalities of the gallbladder, both congenital and acquired, have been reported.[3,5,7] Less frequent, but significant are the cases of herniation of the gallbladder through the apiploic foramen (Foramen of Winslow) into the lesser sac.[6] The purpose of this article is to report a case with a discussion of the pertinent anatomic features and the clinical implications.

Case Report

A 79-year-old female experienced intermittent, irregularly occurring episodes of poorly localized abdominal pain for several years. The pain was associated with ingestion of fatty foods, raw vegetables, and fruit. Slight tenderness was noted by the patient in the right upper abdomen. Radiologic examination on April 4, 1970 showed a large calcified gallstone in the right upper abdominal quadrant (Figure 1). The patient declined surgery. She became symptomatic again on January 22, 1971, with vague postprandial right upper abdominal discomfort. The radiologic examination on that same day showed the large calcified gallstone to the right of

Figure 1 — Large calcified gallstone in the right upper abdominal quadrant.

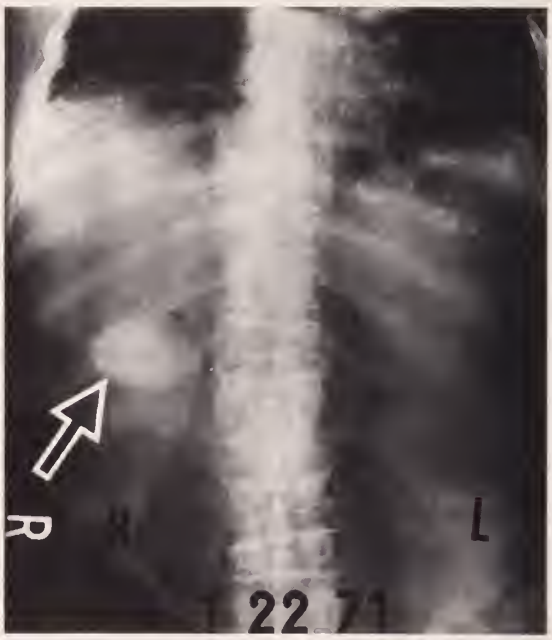


Figure 2 — Large calcified gallstone to the right of the lumbar spine

Figure 3 — Large calcified gallstone displaced far medially to the left of the upper lumbar spine

*From the Saint Barnabas Medical Center where Dr. Mattey is Director of Radiology, Dr. Wujack is Attending Surgeon, and Dr. Islami is Director of Graduate Medical Education, as well as Attending Surgeon.

the lumbar spine (Figure 2). Air in the biliary system was related to duodenal ulcer surgery performed ten years earlier. The patient again refused surgery and returned home on conservative treatment.

Approximately two weeks later, she complained of chest pain, occasional nausea, not apparently related to meals, and a "pulling" sensation in the right upper quadrant while lying on the left side. Repeat radiologic examination on February 4, 1971 showed the large calcified gallstone displaced far medially to the left of the upper lumbar spine (Figure 3).

Exploratory abdominal surgery was performed, and confirmed the radiologic findings of internal hernia of the gallbladder and stone through the Foramen of Winslow. The gallbladder, which was on a long, free mesentery, easily could be caused to herniate into the lesser sac through the epiploic foramen which was large enough to admit four fingers. After cholecystectomy, the patient recovered uneventfully and remained asymptomatic.

Discussion

Herniation of the gallbladder through the epiploic foramen (Foramen of Winslow) probably occurs more commonly than the few reports in the medical literature indicate. The diagnosis is almost always made by cholecystography; but less frequently from plain abdominal films. The abnormal position of the gallbladder is diagnostic. It always lies to the left of the midline above and medial to the duodenal bulb due to its herniation through the epiploic foramen which is located behind the free margin of the lesser omentum. The gallbladder appears to drape over the apex of the duodenal bulb and maintains a very constant position while herniated.[4]

A mobile gallbladder with a long mesentery is necessary to permit such a herniation.[5] Herniation is more likely when the patient is prone or upright. Reduction, which usually can be accomplished without difficulty, is easiest in the supine and right lateral positions. Although such herniation rarely, if ever, causes symptoms,[6] it is important to recognize the correct explanation where a bizarre location of the gallbladder is encountered. For some unknown reason all cases thus far reported have been females. A gallbladder located beneath the left lobe of the liver (Levo position) can somewhat simulate this type of herniation, but is not mobile.[3]

References

1. Berger J S and Packer I: Hernia through Foramen of Winslow. *Va Med* 83:158-160, 1956.

2. Dardik H and Cowen R: Herniation of the gallbladder through the epiploic foramen into the lesser sac. *Ann Surg* 165:644, 1967.

3. Flannery M G and Carter M P: Collective reviews: Congenital abnormalities of the gallbladder — 101 cases. *Internat Obstet Surg* 103:439-457, 1956; in *Surg Gynec Obstet*, 1956.

4. Khilnani M T, Lautkin A, and Wolf B S: Internal hernia through the Foramen of Winslow. *J Mt Sinai Hosp N Y* 26:188-193, 1959.

5. Mayo C W and Kendrick D B: Anomalies of the gallbladder: Report of case of left-sided floating gallbladder. *Arch Surg* 60:668-673, 1950.

6. Vint W A: Herniation of the gallbladder through the epiploic foramen into the lesser sac: Radiologic diagnosis. *Radiol* 86:1035-1040, 1966.

7. Williams A J: Roentgen diagnosis of intra-abdominal hernia: An evaluation of the roentgen findings. *Radiol* 59:817-824, 1952.

210th Annual Meeting

June 4-8, 1976

Cherry Hill Hyatt House

ANNOUNCEMENTS

Programs on Dermatology

The New Jersey Dermatological Society has announced the following program schedule for 1975-1976:

January 13	Photosensitivity Diseases Leonard Harber, M.D. Columbia University College of Physicians and Surgeons
February 10	Pseudo Tumors — 1976 Update A. Bernard Ackerman, M.D. NYU School of Medicine
March 9	Collagen Diseases and Vasculitis Irwin M. Braverman, M.D. Yale University School of Medicine
April 13	Clinical Pathological Conference Lewis Shapiro, M.D. Columbia University College of Physicians and Surgeons

Pulmonary Disease Series

Following is a list of the monthly lectures in pulmonary diseases to be sponsored jointly by the Veterans Administration Hospital in East Orange and the New Jersey Medical School in Newark:

Jan.	21—Interstitial Disease of the Lung
Feb.	18—Protease Inhibitors and Pulmonary Disease
Mar.	17—Pulmonary Cardiogenesis
Apr.	21—Categories of Pulmonary Disease Measured by Functional and Laboratory Data
May	12—Rehabilitation of Chronic Pulmonary Patient

All sessions will be held at 11:30 a.m. in the third-floor auditorium of the East Orange Veterans Administration Hospital. For additional information, please communicate with L. Fred Ayvazian, M.D., Chief of the Pulmonary Disease Section at the hospital.

Regional Chest Conference

On January 22 at the Rutgers Medical School in Piscataway, the Central New Jersey Regional Chest Conference will convene at 4 p.m. Sponsored by the Delaware-Raritan Lung Association and the New Jersey Thoracic Society, the session will be concerned with diagnostic experiences with the fiberoptic bronchoscopy and the lecturer will be David Segall, M.D., Director of Pulmonary Medicine at the Monmouth Medical Center in Long Branch. Application has been made for two-credit hours in AMA Category I of the Physicians' Recognition Award. For additional information, please communicate with the Delaware-Raritan Lung Association, 29 Emmon Drive, Princeton, New Jersey 08540.

Pediatric Arthritis Clinics

Under the auspices of the Greater Delaware Valley Regional Medical Program, demonstration clinics in pediatric arthritis will be conducted by the staff of the connective tissue clinic at the Children's Seashore House in Atlantic City from 9:45 to 11:45 a.m. on the dates listed:

February 18	Treatment of Arthritis
April 21	Arthritis in Children

Prior registration is required and admittance is limited to six physicians at each session. Two hours of AMA Category I accreditation will be awarded to those in attendance. Please call or write to B. H. Athreya, M.D., Children's Seashore House, 4111 Atlantic Avenue, Atlantic City 08401 — (609) 345-5191 — for information.

Symposium on Ambulatory Care of Tuberculosis

A two-day symposium on challenges of ambulatory care of tuberculosis will be held on February 20 and 21 in Baltimore, under the auspices of the Baltimore Department of Health. In addition to a faculty of American physicians, the Director of the British Medical Research Council, Tuberculosis and Chest Diseases Unit, Dr. William Fox, and Dr. D. A. Mitchison, Professor of Bacteriology and Director of the Department of Bacteriology, Royal Postgraduate Medical School, London, will present major addresses. The program is acceptable for 16 AMA Category I credit hours. Registration fee is $10 and includes luncheons. For information please write to Mr. Sheldon Elman,

Baltimore City Health Department, Division of Tuberculosis Control, 111 North Calvert Street, Baltimore 21202.

American College of Surgeons Spring Session

The American College of Surgeons graduate education session for general and specialty surgeons will be held April 26 to 29 in Boston. The following formal courses will be offered:

Surgical Infections and Antibiotics
Endocrine and Hormone-Producing Tumors
Duodenal Ulcer Disease
The Cervical Spine: Injuries, Disc Lesions, and Spondylosis
Fluids, Electrolytes, and Acid-Base Balance
Hematologic Problems in Surgery
Thoracic Trauma and Pulmonary Insufficiency
Orthopedic Surgery — Hand Injuries, Ankle Injuries, and Back Pain

In addition there will be general lectures, panel discussions, and symposia on breast cancer, biliary tract surgery, and peripheral vascular disease, and a program on the federal government and the surgical profession. Registration is free for Fellows in good standing, ACS candidates, and surgical residents and interns. The fee for non-paid Fellows, applicants, and guests is $55. Non-Fellows in fulltime federal service may register for $30. The charge for each of the eight courses is $50. Fellows have already received official registration and hotel accommodation forms. Non-Fellows may request these from S. Frank Arado, American College of Surgeons, 55 East Erie Street, Chicago 60611.

Scientific Assembly — AMCMS

The American Society of Contemporary Medicine and Surgery will hold its 1976 scientific assembly from February 29 to March 5 at the Americana Hotel in Bal Harbour, Florida. Faculty leaders in American medicine will present seminars in cancer, cardiovascular disease, hypertension, alimentation, infectious disease, gastroenterology, pulmonary disease, and other fields. Continuing Medical Education accreditation will be awarded in AMA Category I (40 hours) and toward the Academy of Family Practice CME program (30 hours). For information and a complete program please write to John G. Bellows, M.D., Director, American Society of Contemporary Medicine and Surgery, 30 North Michigan Avenue, Chicago 60602.

210th Annual Meeting
June 4-8, 1976
Cherry Hill Hyatt House

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Jan.

12 **Neuroscience Unit Conferences**
19 11:30 a.m.-12:30 p.m. — Bergen Pines Hospital, Paramus
26 *(Sponsored by Bergen Pines Hospital and Academy of Medicine)*

12 **Neurochemistry and Genetics of Mental Illness**
26 11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

12 **Pediatric Happenings**
19 12:30 p.m. — Overlook Hospital, Summit
26 *(Sponsored by Overlook Hospital and AAFP)*

12 **Distinguished Lectures in Surgery**
19 4-5 p.m. — Martland Hospital Unit, Newark
26 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

13 **Psychiatric Case Conferences**
20 7:30 p.m. — Trenton Psychiatric Hospital
27 *(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*

13 **Topics in Neurosurgery**
20 4-5 p.m. — VA Hospital, East Orange
27 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)*

13 **Postmenopausal Osteoporosis**
8:30-9:30 a.m. — Irvington General Hospital
(Sponsored by Irvington General Hospital and Academy of Medicine)

13 **Tumor Conferences**
20 11 a.m.-12 noon — Morristown Memorial Hospital
27 *(Sponsored by Morristown Memorial Hospital and Academy of Medicine)*

13 **Photosensitivity Diseases**
8 p.m. — Schering Corporation, Kenilworth
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

13 **Thyroid Diseases**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

13 **Infectious Diseases**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

13 **Proper Use of Antibiotics**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

14 **Perinatal Seminars**
21 9:30 a.m.-2 p.m. — Newark Beth Israel Medical
28 Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

14 **Conferences in Endocrinology**
21 3:30-5 p.m. — Location to be announced
28 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

14 **Anesthesia Conference**
8-9:30 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

14 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey and Academy of Medicine)

14 **Gastrointestinal Bleeding**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

14 **Diagnosis and Monitoring of Shock**
21 **Mitral Valve Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

14 **Family Practice Multidiscipline Conference**
28 12:30 p.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital, and AAFP)

14 **Respiratory Failure**
21 **Recognition and Management of Heart Failure**
28 **Fluid and Elecrolyte Problems in Pediatric Practice**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

14 **Medical Lecture Series**
21 9-11 a.m. — Riverview Hospital, Red Bank
28 *(Sponsored by Riverview Hospital and Academy of Medicine)*

14 **Current Topics in Psychiatry**
3-4 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

14 **Postgraduate Course in Cardiology**
21 10-11:30 a.m. — St. Michael's Medical Center,
29 Newark

(Sponsored by St. Michael's Medical Center and Academy of Medicine)

14 **Medical Aspects of the Aging Process**
21 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
28 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

15 **Postgraduate Symposium in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

15 **Topics in Oncology**
22 1:30-2:30 p.m. — Martland Medical Unit, Newark
29 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

15 **Advances in Immunology Course**
22 4-6 p.m. — Institute for Medical Research, Camden
29 *(Sponsored by Institute for Medical Research and Academy of Medicine)*

16 **Ophthalmology Seminar**
23 7:30-9:30 a.m. — United Hospitals of Newark
30 *(Sponsored by Associated Eye Residencies of New Jersey and Academy of Medicine)*

16 **Medical Management of the Complications of Pregnancy**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Airway Obstruction in Infants and Children**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

16 **Family Practice Seminars**
23 12:30 p.m. — Overlook Hospital, Summit
30 *(Sponsored by Overlook Hospital and AAFP)*

17 **Advances in Orthopedic Surgery**
24 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
31 School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

17 **New Nutrition — Protocols and Problems**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

19 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

20 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

20 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

20 **Cardiac Rehabilitation**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

20 **Temperature Control in Neonate during Anesthesia**
8 p.m. — Ramada Inn, Clark
(Sponsored by New Jersey Society of Anesthesiologists and Academy of Medicine)

20 **Treatment of Borderline Adolescent**
8 p.m. — One Cherry Hill, Suite 920, Cherry Hill
(Sponsored by Institute of Pennsylvania Hospital and Academy of Medicine)

21 **Open Angle Glaucoma**
7:15-9:15 p.m. — United Hospitals Medical Center, Newark
(Sponsored by Associated Eye Residencies of New Jersey and Academy of Medicine)

21 **Mitral Valve Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

21 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

21 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

21 **Proper Use of Endoscopy**
1 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital and Academy of Medicine)

21 **Psychiatry — Group Therapy**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

21 **Proper Use of Blood Gases**
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

21 **Basic Electrocardiography**
7:30 a.m. — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

22 **Hypersensitivity Lung Disease**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

22 **Pulmonary Sarcoidosis**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

22 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

22 23 **Gynecologic Laparoscopy**
9 a.m.-5 p.m. (First Day)
8 a.m.-3 p.m. (Second Day) — Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

26 **Neonatal Emergencies**
11:30 a.m. — Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine)

27 **Medical-Legal Aspects of Medicine and Surgery**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

27 **Aging and Organic Brain Syndrome**
11 a.m.-12 noon — Neuropsychiatric Institute, Princeton
(Sponsored by New Jersey Neuropsychiatric Institute, New Jersey Psychiatric Association, and Academy of Medicine)

27 **Perinatology and Neonatology Seminar**
2 p.m. — West Jersey Hospital, Cherry Hill
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

27 **Plastic Surgery of the Breast**
7-10 p.m. — Englewood Men's Club
(Sponsored by Englewood Surgical Society and Academy of Medicine)

27 **Oncology and Hematology Meeting**
8-9 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 **High Risk Neonate**
2-5 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and AAFP)

28 **Radiology**
8:30 p.m. — The Manor, West Orange
(Sponsored by the Radiology Section of the Academy of Medicine)

28 **Echocardiography in Assessment of Patient with Coronary Artery Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

28 **Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

29 **Organ Scanning with Radioactive Materials**
8-9 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

30 **Proper Use of Endoscopy**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

Feb.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

2 **Diagnosis of the Anemic Patient**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

2 23 **Neuroscience Unit Conferences**
11:30 a.m.-12:30 p.m. — Bergen Pines Hospital, Paramus
(Sponsored by Bergen Pines Hospital and Academy of Medicine)

2 **Cerebral Vascular Disease**
1 p.m. — Ancora Psychiatric Hospital
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

2 9 16 23 **Pediatric Happenings**
12:30 p.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

2 9 16 23 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Family Practice/Psychiatric Case Presentations**
12:30 p.m. -- Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

3 **Laboratory Interpretations**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

3 10 17 24 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

3 10 17 24 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

3 10 17 24 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Hospital and Academy of Medicine)

4 **Laboratory Interpretations**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

4 **Malpractice**
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

4 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

4 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

4 **Medical Lecture Series**
11 9-11 a.m. — Riverview Hospital, Red Bank
18 *(Sponsored by Riverview Hospital and*
25 *Academy of Medicine)*

4 **Electrolyte Problems in the Aged**
11 **Food Faddism and Hypervitaminosis**
18 **Obesity — Fact and Fantasy**
25 **Abnormal Uterine Bleeding**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

4 **Medical Aspects of Aging Process**
11 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
18 202, Newark
25 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

4 **Cardiology**
11 10-11:30 a.m. — St. Michael's Medical Center, Newark
18 *(Sponsored by St. Michael's Medical Center and*
25 *Academy of Medicine)*

4 **Conferences in Endocrinology**
11 3:30-5 p.m. — Location to be announced
18 *(Sponsored by CMDNJ-New Jersey Medical School,*
25 *VA Hospital, Newark Beth Israel Medical Center, and Academy of Medicine)*

4 **Perinatal Seminars**
11 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
18 *(Sponsored by Newark Beth Israel Medical Center and*
25 *Academy of Medicine)*

4 **Cardiology Conferences**
18 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

4 **Basic Electrocardiography**
7:30 a.m. — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

4 **The Pancreas (Albert Siegel Memorial Symposium)**
Details later
(Sponsored by the Academy of Medicine)

5 **Topics in Oncology**
1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Advances in Immunology**
12 4-6 p.m. — Institute for Medical Research, Camden
19 *(Sponsored by Institute for Medical Research*
26 *and AAFP)*

6 **Malpractice**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

6 **Family Practice Seminars**
13 12:30 p.m. — Overlook Hospital, Summit
20 *(Sponsored by Overlook Hospital and AAFP)*
27

7 **Advances in Orthopedic Surgery**
14 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
21 School, Newark
28 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

9 **Neurochemistry and Genetics of Mental Illness**
23 11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

10 **Psycho-Hormonal Aspects of Menopause**
8:30-9:30 a.m. — Irvington General Hospital
(Sponsored by Irvington General Hospital and Academy of Medicine)

10 **Practical Ophthalmology**
8 a.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital, Department of Family Practice, and AAFP)

10 **Psuedo-Tumors, 1976 Update**
8 p.m. — Schering Corporation, Kenilworth
(Sponsored by Academy of Medicine, and New Jersey Dermatological Society)

10 **Current Treatment of Burns**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

10 **Breast Cancer**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

10 **Fluid and Electrolyte Imbalance**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

11 **Differential Diagnosis of Arthritis**
1 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital and Academy of Medicine)

11 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey and Academy of Medicine)

11 **Peritoneoscopy**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Jersey City)

11 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

11 **Perinatal Seminars**
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

11 25 **Family Practice Multidiscipline Conference**
12:30 p.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

12 **Antibiotic Selection**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 **Cervical and Uterine Cancer**
1 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 26 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

16 **1975-76 Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

17 **Pacemakers**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital)

17 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

17 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 **Advances in Management of Tuberculosis**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

18 **Annual Meeting**
7 p.m. — Forsgate Farms Country Club, Jamesburg
(Sponsored by American Diabetes Association [New Jersey Affiliate] and Academy of Medicine)

18 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

18 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

18 **Protection of Ischemic Myocardium in Man**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

19 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

20 **Pediatric Endocrinology**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

20 **Diabetes**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 **Pediatric Surgery**
9 a.m.-12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

24 **Management of the High-Risk Neonate**
7-10 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

24 **Perinatology and Neonatology Seminar**
7 p.m. — Christ Hospital, Jersey City
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

24 **Proper Use of Endoscopy**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

24 **Peripheral Vascular Disease**
11 a.m. — Perth Amboy General Hospital
(Sponsored by Perth Amboy General Hospital and Academy of Medicine)

24 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 **Dysfunctional Uterine Bleeding**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

25 **Acupuncture**
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

25-27 **Emergency Medical Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

26 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 **Cryptococcus**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

26 **Renal Angiography**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

27 **Cardiac Arrhythmias**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

28 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and VA Hospital)

Mar.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1 **Neuroscience Unit Conferences**
11:30 a.m.-12:30 p.m. — Bergen Pines Hospital, Paramus
(Sponsored by Bergen Pines Hospital and Academy of Medicine)

1 **Distinguished Lectures in Surgery**
8 4-5 p.m. — Martland Hospital Unit, Newark
15 *(Sponsored by CMDNJ-New Jersey Medical School*
22 *and Academy of Medicine)*
29

1 **Congestive Heart Failure**
1 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

1 **Medical-Legal Aspects of Medicine and Surgery**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

2 **Psychiatric Case Conferences**
9 7:30-9:30 a.m. — Trenton Psychiatric Hospital
16 *(Sponsored by Trenton Psychiatric Hospital and*
23 *Academy of Medicine)*
30

2 **Topics in Neurosurgery**
9 4-5 p.m. — VA Hospital, East Orange
16 *(Sponsored by CMDNJ-New Jersey Medical School,*
23 *VA Hospital, East Orange, and Academy of Medicine)*
30

2 **Medical-Legal Aspects of Medicine and Surgery**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

2 **Tumor Conferences**
9 11 a.m.-12 noon — Morristown Memorial Hospital
16 *(Sponsored by Morristown Memorial Hospital and*
23 *Academy of Medicine)*
30

3 **Medical Aspects of Aging Process**
10 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
17 202, Newark
24 *(Sponsored by CMDNJ-New Jersey Medical School*
31 *and Academy of Medicine)*

3 **Diagnosis of the Anemic Patient**
1 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

3 **Perinatal Seminars**
10 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
17 *(Sponsored by Newark Beth Israel Medical Center)*
24
31

3 **Conferences in Endocrinology**
10 3:30-5 p.m. — Location to be announced
17 *(Sponsored by CMDNJ-New Jersey Medical School,*
24 *VA Hospital, East Orange, Newark Beth Israel*
31 *Medical Center and Academy of Medicine)*

3 **Hormones in Office Gynecologic Practice**
10 **Risk Factors in Breast Cancer**
17 **Breast Problems Encountered in Office Practice**
24 **Epidemiology and Host Susceptibility Factors in Cancer**
31 **Office Dermatology**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

3 **Medical Lecture Series**
10 9-11 a.m. — Riverview Hospital, Red Bank
17 *(Sponsored by Riverview Hospital and*
24 *Academy of Medicine)*
31

3 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Cardiology Conferences**
17 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3 **Liver, Surgery and Biopsy**
1-3 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Academy of Medicine and AAFP)

3 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

4 **Topics in Oncology**
11 1:30-2:30 p.m. — Martland Medical Unit, Newark
18 *(Sponsored by CMDNJ-New Jersey Medical School*
25 *and Academy of Medicine)*

4 **Advances in Immunology**
11 4-6 p.m. — Institute for Medical Research, Camden
18 *(Sponsored by Institute for Medical Research*
25 *and AAFP)*

5 **Fall-Spring Psychiatric Lecture Series**
12 1:30-5 p.m. — Trenton Psychiatric Hospital
19 *(Sponsored by Trenton Psychiatric Hospital and*
26 *Academy of Medicine)*

5 **Fungal Infections**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

6 **Nuclear Medical Procedures in Surgery**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 **Advances in Orthopedic Surgery**
13 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
20 School, Newark
27 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

8 **Neurochemistry and Genetics of Mental Illness**
22 11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

9 **Carcinoma of the Endometrium**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

9 **New Developments in Scanning**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

9 **Headache**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

9 **Thyroid Diseases**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

9 **Collagen Diseases and Vasculitis — 1976**
Schering Corporation, Kenilworth
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

10 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey and Academy of Medicine)

10 **Cancer Teaching Day**
9:10 a.m.-4:30 p.m. — Englewood Hospital
(Sponsored by Englewood Hospital Association and Academy of Medicine)

10 **Anesthesia Conference**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

10 **Medical-Legal Aspects of Medicine and Surgery**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

10 **Cerebral Vascular Disease**
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

10 **Management of Advanced Cancer Patient**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

11 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

11 **Cardiomyopathies**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

12-15 **Revolutionary Trends in Medicine 1976**
Hyatt House, Cherry Hill
(New Jersey AFP Annual Convention)

12 **Headaches in Childhood**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Diversionary Urologic Surgery**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Proper Use of Antibiotics**
11:30 a.m. — Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine)

15 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

16 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

16 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

16 **Arthritis**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 **Clinical Immunology**
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

17 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

17 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

17 **The Right to Psychiatric Treatment**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

17 **Hypertension**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

17 **Perinatal Seminars**
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

18 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

19 **Antenatal and Prenatal Diagnosis of Congenital Defects**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

19 **Infertility**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

23 **New Developments in Scanning**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23 **Tumor Board Visiting Professor Series**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

23 **Perinatology and Neonatology Seminar**
7 p.m. — Holy Name Hospital, Teaneck
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

24 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

24 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

24 **The Limbic System; Behavior and Epilepsy**
VA Hospital — East Orange
(Sponsored by VA Hospital, East Orange, and Academy of Medicine)

25 **CA of the Lung**
7:15 p.m.-10:15 p.m. — Hospital Center of Orange
(Sponsored by Academy of Medicine and the Radiological Society of New Jersey)

25 **Hypertension**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

26 **Arthritis**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

27-28 **17th Annual Postgraduate Anesthesia Seminar**
Cherry Hill Inn, Cherry Hill
(Sponsored by New Jersey State Society of Anesthesiologists and Academy of Medicine)

30 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

Apr.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Topics in Oncology**
1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

2, 9, 16, 23, 30 **Fall-Spring Psychiatric Lecture Series**
1:30-5 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

2 **Pre-Hospital Coronary Care**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

3, 10, 17, 24 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ-New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5, 12, 19, 26 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Medical-Legal Aspects of Medicine and Surgery**
1 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

5 **Current Chemotherapy of Malignant Disease**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

5 **Neurochemistry and Genetics of Mental Illness**
19 11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

6 **Tumor Conferences**
13 11-12 noon — Morristown Memorial Hospital
20 *(Sponsored by Morristown Memorial Hospital and*
27 *Academy of Medicine)*

6 **Topics in Neurosurgery**
13 4-5:00 p.m. — VA Hospital, East Orange
20 *(Sponsored by CMDNJ-New Jersey Medical School,*
27 *VA Hospital, East Orange, and Academy of Medicine)*

6 **Psychiatric Case Conferences**
13 7:30 a.m. — Trenton Psychiatric Hospital
20 *(Sponsored by Trenton Psychiatric Hospital)*
27

6 **Comprehensive Review of Chemotherapy in Psychiatry**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

7 **Medical Aspects of Aging Process**
14 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
21 202, Newark
28 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

7 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

7 **Perinatal Seminars**
14 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
21 *(Sponsored by Newark Beth Israel Medical Center and*
28 *Academy of Medicine)*

7 **Pathogenesis and Management of Uremia**
14 **Sensory Feedback in Neurological Disorders**
21 **Basic Principles of Behavior Therapy**
28 **Medical Aspects of the Psychiatric Consultation**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

7 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Conferences in Endocrinology**
14 3:30-5 p.m. — Location to be announced
21 *(Sponsored by CMDNJ-New Jersey Medical School,*
28 *VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

7 **Cardiology Conferences**
21 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

7-9 **Emergency Medicine Conferences (Three Day Sessions)**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Neurology-Headache**
1-3 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Academy of Medicine, and AAFP)

7 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Monthly Meeting**
8-10 p.m. — Morristown Memorial Hospital
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)

8 **Internal Medicine/Family Medicine Visiting Pro-**
22 **fessorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

8 **Shock in Newborn**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

9 **Chronic Osteomyelitis in Childhood**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

9 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

9 **Human Sexuality Seminar**
11 8:30 a.m.-4:30 p.m. — Cherry Hill Inn, Cherry Hill
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

10 **Pharmacology of New Anesthetic Agents**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Clinical Endocrinology**
8 p.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

13 **Clinical Immunology**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

13 **Diabetes**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

13 **Clinical Pathological Conference**
8 p.m. — Johnson & Johnson, New Brunswick
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

14 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

14 Anesthesia Conferences
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

15 Renal Regulation of Sodium Excretion
Somerset Hospital, Somerville
(Sponsored by Nephrology Society of New Jersey, N.J. RMP and Academy of Medicine)

15 Postgraduate Symposia in Surgery
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

16 Surgical Management of Ulcerative Colitis
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

17 Monitoring of the High Risk Patient
9 a.m. — St. Barnabas Hospital, Livingston
(Sponsored by St. Barnabas Hospital, Department of Surgery)

17 Symposium on Monitoring the High-Risk Patient
9 a.m. — St. Barnabas Medical Center, Livingston
(Sponsored by New Jersey State Society of Anesthesiologists and Academy of Medicine)

19 Medical Lecture Series
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

20 Joint Neurological-Neurosurgical Conferences
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

20 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

20 Dermatology
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

21 Recent Advances in Pulmonary Disease
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 Treatment of Pain; Medical and Neurosurgical
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

21 Thyroid Diseases
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

21 Geriatric Psychiatric Syndromes with Review of Chemotherapy
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

22 The Middle Ear
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

22 Therapy of Diabetes
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

27 Clinical Pathological Conferences
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

27 Trauma-Outpatient Department
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 Perinatology and Neonatology Seminar
7 p.m. — Chilton Memorial Hospital, Pompton Plains
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

28 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

28 Management of the Diabetes Patient
9 a.m.-5 p.m. — Rutgers Medical School, Piscataway
(Sponsored by American Diabetes Association and AAFP)

30 Diagnosis of the Anemic Patient
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

May

— General Surgery Continuing Education
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 Advances in Orthopedic Surgery
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3, 10, 17, 24 Distinguished Lectures in Surgery
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 Anesthesiology
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

4 **Topics in Neurosurgery**
11 4-5 p.m. — VA Hospital, East Orange
18 *(Sponsored by CMDNJ-New Jersey Medical School,*
25 *VA Hospital, East Orange, and Academy of Medicine)*

4 **New Developments in Scanning**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

4 **Tumor Conferences**
11 11 a.m.-12 noon — Morristown Memorial Hospital
18 *(Sponsored by Morristown Memorial Hospital and*
25 *Academy of Medicine)*

4 **Psychiatric Case Conferences**
11 7:30 a.m. — Trenton Psychiatric Hospital
19 *(Sponsored by Trenton Psychiatric Hospital)*
25

5 **Biochemistry of Mental Disorder**
8 a.m.-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

5 **Renal Tubular Dysfunction**
12 **Intestinal Absorption and Malabsorption**
19 **The Future of Allergy**
26 **Office Use of Antibiotics**
9:00-11:00 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

5 **Conferences in Endocrinology**
12 3:30-5 p.m. — Location to be announced
19 *(Sponsored by CMDNJ-New Jersey Medical School,*
26 *VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

5 **Perinatal Seminars**
12 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
19 *(Sponsored by Newark Beth Israel Medical Center)*

5 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Cardiology Conferences**
19 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Peripheral Vascular Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Jersey City)

6 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 **Topics in Oncology**
13 1:30-2:30 p.m. — Martland Hospital, Newark
20 *(Sponsored by CMDNJ-New Jersey Medical School*
27 *and Academy of Medicine)*

7 **Fiberoptic Bronchoscopy**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

11 **Arthritis**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

11 **Emergency Medicine**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

11 **Laboratory Interpretations**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

11 **Arthritis**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

12 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and School of Medicine)

12 **Office Treatment of Depression**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

12 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

12 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

12 **Chronic Renal Failure**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

13 **Management of Hyperlipidemias**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Genetics**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Inflammatory Bowel Disease**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

17 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

18 Joint Neurological-Neurosurgical Conferences
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

18 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 Headache
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

18 Drug Addiction
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

19 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

19 Diabetes Mellitus
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

19 Perinatal Seminars
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center, Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

19 New Developments in Scanning
Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

19-21 Emergency Medicine Conferences
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

20 To be announced
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

20 Postgraduate Symposia in Surgery
West Jersey Hosital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

21 Management of Hepatitis
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 Management of End State Renal Disease
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 Abnormalities in Growth Patterns in Childhood and Adolescence
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 Clinical Pathological Conferences
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 Drug Addiction
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

25 Perinatology and Neonatology Seminar
7 p.m. — Saddle Brook General Hospital
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

26 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 Annual Awards Dinner
6:30 p.m. — The Chanticler, Millburn
(Sponsored by Academy of Medicine)

26 Child Abuse Revisited
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

27 In Vitro Studies of Erythropoiesis
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

28 Thyroid Diseases
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

June

— General Surgery Continuing Education
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 Topics in Neurosurgery
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

1, 8, 15, 22, 29 Psychiatric Case Conferences
7:30-9:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

1, 8, 15, 22, 29 Tumor Conferences
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

2 Computerized Axial Tomography
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

2 Obstructive Lung Disease
1:00 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

2
16 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3
10
17
24 **Topics in Oncology**
1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3
4 **Gynecological Laparoscopy**
9 a.m.-5 p.m. — First Day
8 a.m.-3 p.m. — Second Day, Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

4-8 **MSNJ Annual Meeting**
Cherry Hill Hyatt House
Cherry Hill

4 **Fluid and Electrolyte Imbalance**
8:30 a.m. — United Hospitals of Newark
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5
12
19
26 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Thyroid Diseases**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

8 **Tuberculosis**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

8 **Trauma and the Emergency Department**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

8 **Acute Renal Failure**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Nephrology Society of New Jersey, N. J. RMP, and Academy of Medicine)

9 **Thanatology**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

9 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Antibiotics and Surgical Infection**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 **Infertility**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 **Update on Psychotropic Drugs**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

16 **Laboratory Interpretations**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

18 **Orthopedic Problems**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

18 **Photographic Panorama of Pediatric Problems**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

21 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital)

22 **Perinatology and Neonatology Seminar**
7 p.m. — Somerset Hospital, Somerville
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

22 **Management of Hypertension**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23-25 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

23 **Visiting Lectures in Ophthalomology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

29 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

OBITUARIES

Dr. Eugene Gosselin

At the untimely age of 50, Eugene J. Gosselin, M.D., of Colonia, died on October 25, 1975. A native of Massachusetts, Dr. Gosselin earned his medical degree from Laval Medical School (Canada) in 1951 and came to Middlesex County to practice general medicine and later to specialize in otolaryngology. He was director of the department of otology at Kennedy Hospital in Edison, and attending in otolaryngology at Perth Amboy General Hospital. He was a member of the New Jersey Academy of Ophthalmology and Otolaryngology, and of the American Society of Ophthalmologic and Otolaryngologic Allergy. He was also active in the Deafness Research Foundation of the Centurion Club and in the Aerospace Medical Association.

Dr. Robert S. Milligan

At the grand age of 86, one of Union County's senior members, Robert S. Milligan, M.D., died on November 25, 1975. A native of New Jersey, Dr. Milligan was graduated from Jefferson Medical College in the class of 1918. He was a general practitioner with special interest in industrial medicine. He had served the people of Summit for many years and was associated with the Overlook Hospital there.

Dr. Jack J. Rommer

One of Essex County's senior members, Jack Jay Rommer, M.D., died on October 27, 1975. Born in 1909 and a graduate of Hahnemann Medical College in 1938, Dr. Rommer pursued residencies in psychiatry and in neurology at Lyons Veterans Administration Hospital and at Bellevue Hospital in New York, becoming board certified in those fields. He was a Fellow of the American Psychiatric Association and of the American Academy of Psychosomatic Medicine. He was a founding member of the Royal College of Psychiatry (British) and held membership in many organizations concerned with psychiatry and psychotherapy in the United States. Dr. Rommer was associated with the Veterans Administration Hospital at Lyons and with St. Michael's Hospital in Newark, as well as several hospitals in metropolitan New York.

Dr. Julius Siegler

On November 2, 1975, Julius Siegler, M.D., formerly of Jersey City, died in Hollywood Memorial Hospital, Florida. One of Hudson County's senior members, Dr. Siegler was graduated from Columbia University's College of Physicians and Surgeons in 1921 and practiced surgery in Hudson County for 50 years before retiring to Florida in 1972. He was a pioneer in peripheral vascular surgery and was associated with the Margaret Hague Hospital in Jersey City and the Medical Center there.

Dr. William Toth

William Toth, M.D., a member of our Middlesex County component, died on November 28, 1975. A native of New Jersey, Dr. Toth was graduated from Hahnemann Medical College in 1943 and returned to his home community to practice general and thoracic surgery. He held staff appointments at the Perth Amboy General, Roosevelt Hospital in Metuchen, and Kennedy Hospital in Edison. During World War II, Dr. Toth served his country for four and a half years as a medical officer in the United States Navy. He was only 59 years old at the time of his death.

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BOOK REVIEWS

Talk Back to Your Doctor: How to Demand (and Recognize) High Quality Health Care. Arthur Levin, M.D., New York, Doubledoy, 1975. ($7.95)

There is an unfortunate trend to replace the traditional doctor-patient relationship with an adversary situation. This book is an example. The author combines the viewpoint of a consumer advocate with that of a recent graduate of a residency program. He is fashionably unhappy with the state of medical care in America, particularly that which is rendered by solo practitioners over the age of 45, who are not affiliated with large (over 500 beds) university-connected hospitals. He advises the consumer seeking a primary care physician to ask a series of penetrating questions about the doctor's training, work habits, affiliations, and every step in history and physical examination, diagnostic tests, x-rays, and treatment. His attitude toward office care is simplistic. He has obviously never had to concern himself with the costs of services to patients. At one point, he decries the alleged excessive amounts of surgery in this country, but he advises the reader not to be operated on by anyone who spends less than ten hours a week in the operating room.

Dr. Levin's credits on the dust jacket do not indicate that he has practiced medicine. This is unfortunate, because his book contains some very sound advice, and could be very useful to prospective patients if it were more objective and realistic. I would suggest that he practice in an office for a few years, and then rewrite the book.

Daniel J. O'Regan, M.D.

The Dilemmas of Euthanasia. Edited by John A. Behnke and Sissela Bok. New York, Doubleday, 1975. Pp. 187 (Paperback — $2.95)

In a concisely written, non-illustrated manner, this multi-authored book describes the many aspects of euthanasia. It is a thought-provoking text and, while within itself does not alter the national thinking on the subject of euthanasia and the dying, does add an additional perspective. It is through endeavors such as this, covering all factors of euthanasia, both the past, present, and the future that we may some day arrive at a firm conclusion pertaining to this highly controversial subject. The book represents an excellent addition to existing literature on the subject and should definitely be in the library of those physicians who deal with the dying and the dead.

James L. Breen, M.D.

Stress Fractures. Michael Devas. New York, Churchill Livingstone, 1975. pp. 240, Illustrated ($45).

The author started the Stress Fracture Bureau at the Middlesex Hospital in England, in 1957. This book is the result of his examination of the records on that interesting subject. Stress fractures occur much more frequently than is commonly recognized, and they can involve most parts of the skeleton. Mr. Devas describes these injuries as occurring in the normal bones of healthy people doing everyday activities with no injury. The cause is muscular pull on the bone, and not the effect of weight and gravity. Symptoms are gradual, and early x-rays may be negative. The initial diagnosis must be clinical, and a high index of suspicion is necessary as not all stress fractures are benign.

The chapters are arranged bone by bone. With this format, some of the discussion is repetitious. There are many excellent reproductions of radiographs. The bibliography is complete. One might argue with the inclusion of fractures in osteoporotic bone, which the author does not regard as pathologic (he considers it part of the normal aging process).

Mr. Duval is to be congratulated for compiling this material. Statistics might be included in the next edition. The book is recommended to all who deal with trauma, and also to radiologists.

Daniel J. O'Regan, M.D.

Keeping Food Safe. Hossell Bradley and Carole Sundberg. New York, Doubleday, 1975. Pp. 266 ($7.95)

This book is advertised as "the complete guide to safeguarding your family's health while handling, preparing, preserving, freezing, and storing food at home" yet both commercial and home techniques and procedures are discussed, which would be most confusing to the homemaker.

The authors claim that this is not a "scare book" but such statements as "there is a killer in your kitchen: clostridium botulinum, botulism, a toxin so deadly it has been considered for germ warfare" and several other sections and examples are presented in an alarmist and sensational manner that would prey on the personal fears of a scientifically unsophisticated audience.

There is an extensive reference of authoritative sources mixed with a number of anonymous magazine and newspaper articles. Although the book is provocative, it would be useful only to readers having some sound background in the subject who might be interested in reviewing material in this area. For the homemaker without such a background, it would be too technical and might be misleading.

Margaret P. Zealand

Dermatology and the Physician's Assistant. Marie-Louise T. Johnson, M.D. and K. B. Oseekey. National Program for Dermatology, American Academy of Dermatology, Hanover, New Hampshire, 1975

This compendium contains all the necessary tables and opinion-forms listed to provide the basis of most of the written text. Insofar as individual use of this material, I do believe the first "Section" contains sufficient data to permit an interested party to use *Dermatology and the Physician's Assistant* in his own practice.

The compendium lists a concise outline of the services which such a Physician's Assistant would properly be taught to perform. There also are pros and cons, both as to state legislation and medical malpractice.

I must congratulate Dr. Marie-Louise T. Johnson and her assistants in their compilation of all the data.

Murray Kahn, M.D.

General Urology. 8th edition. Donald R. Smith, M.D. Los Altos, California, Lange, 1975. Pp. 492. Illustrated. ($10.50)

Dr. Donald Smith has written a comprehensive, readable, and well-illustrated book on urology. In this volume he has included all the important facets of urology from chronic cystitis to the more exotic renal transplantation and adrenal venography. The subjects are covered clearly and concisely.

At times an important subject such as a space-occupying lesion of the kidney is handled too didactically. Ultrasonic examinations and selective renal arteriograms certainly will distinguish a cyst from a tumor in most cases, as he indicates, but there are a significant number where a clear distinction is not made. He does not state, however, that cystic lesions require cyst operation for confirmation of a benign cyst; otherwise, tumors are missed. This type of omission is understandable when one realizes that he has covered the entire field of urology in less than 500 pages.

The book has nicely divided chapters, which include those usually found, such as anatomy and physiology and disorders of the kidneys and of the female urethra. In addition, there are brief chapters on skin diseases of the external genitalia, abnormalities of sexual differentiation, and even psychosomatic urinary frequency and retention. Each chapter has a list of references according to the subdivisions in the chapter, and the references are current.

This soft-covered book would be a useful addition to the library of the generalist because of its wealth of information, but also to that of the urologist as a quick and up-to-date reference guide.

Robert H. Stackpole, M.D.

Head Nurse. Barbara Villet. Garden City, New York, Doubleday, 1975. Pp. 201. ($7.95)

Anyone contemplating a career in nursing would benefit by reading this book, as the author delivers what is promised on the jacket: "A fair study of what is best in big hospital care."

Through the eyes of the head nurse, the reader encounters all the problems of nursing in a major metropolitan hospital and, most important, all the difficulties that must be overcome in order to keep the practice of medicine a humane experience for the patient and the nurse.

This book provides good material for discussion by the nursing students who have not yet come to terms with the nurse's role in present-day medicine.

Gloria Klement, R.N.

Acknowledgments

The Journal acknowledges the contribution of the members of the Manuscript Review Board (whose names are listed on the title page of each issue) for their assistance in evaluating scientific manuscripts during the year past, and of the following members whose reviews of books sent to *The Journal* were published during 1975 (Volume 72).

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WALLACE FOX, Director of the British Medical Research Council, Tuberculosis and Chest Diseases Unit, London.

D. A. MITCHISON, Professor of Bacteriology and Director of the Department of Bacteriology, Royal Postgraduate Medical School, London.

and

DRS. REYNOLD BROWN, GEORGE COMSTOCK, PAUL DAVIDSON, LAURENCE FARER, DAVID GLASSER, PRISCILLA LAWS, GARDNER MIDDLEBROOK, JERRY MITCHELL, ALLAN MOODIE, THOMAS MOULDING, LEE REICHMAN, RICHARD RILEY, JOHN SBARBARO, WILLIAM STEAD.

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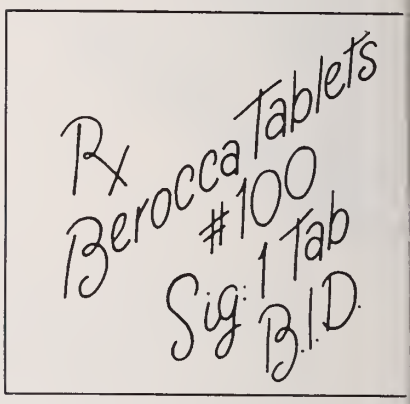

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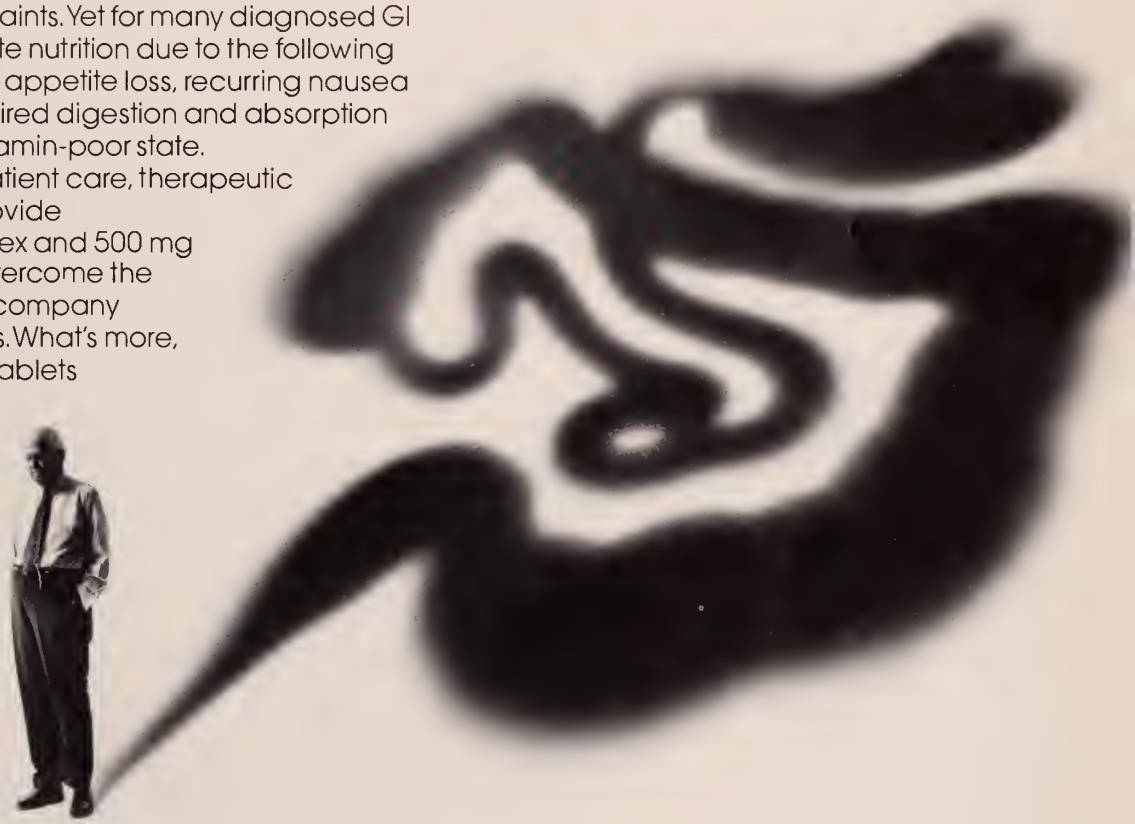

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EDITORIALS

Judicial Recognition of Medical Expertise

The Karen Quinlan decision recently determined in a Superior Court case heard in Morris County is to be considered a milestone in American jurisprudence.

The position of the American Medical Association and The Medical Society of New Jersey concerning the determination of death is best summarized by the following quotes from the proceedings of the American Medical Association House of Delegates meeting, December 1973.

"Death shall be determined by the clinical judgment of the physician using the necessary available and currently developed criteria."

"The cessation of the employment of extraordinary means to prolong the life of the body when there is irrefutable evidence that biological death is imminent is the decision of the patient and/or his immediate family. The advice and judgment of the physician should be freely available to the patient and/or his immediate family."

The parents of Karen Quinlan brought a legal action requesting an injunction that would direct Miss Quinlan's physicians to cease the employment of a mechanical AM-1 respirator that was artificially sustaining Karen's vital processes.

The Court, in denying that request, provided some solace to the medical profession that at least on some occasions the law can and will pay due deference to medical expertise. Judge Muir, ruling for the Court, declared: "Where the incompetent patient, although comatose and in a persistent vegetative state, is by legal and medical definition alive, and where her treating physicians are unwilling to remove her from a life-sustaining respirator, the determination whether she be removed from it is to be left to the treating physicians as a medical decision, not a judicial one; it may be concurred in by the parents but not governed by them."

Vincent A. Maressa, J.D.

Informed Consent — 1809

In the final analysis, the principle of informed consent, in its daily application, becomes a matter of good common sense. Although our individual endowment with this great gift is variable, it seems that Dr. Ephraim McDowell, who began his practice of medicine and surgery at Danville, Kentucky in 1795, had a goodly share of this commodity and many other favorable attributes as well.

McDowell, who was described as "modest, soft-spoken, and gentle," garnered an enviable reputation in that frontier territory as a great surgeon. Although he became famous — he successfully operated on President James K. Polk when Polk was fourteen years of age and had a bladder calculus — his major surgical contribution was an operation performed on Jane Crawford, a forty-five-year-old Kentucky homemaker.

Dr. McDowell's fame required him to ride hundreds of miles throughout the Ohio and Mississippi valleys to consult on and assume responsibility for very difficult cases. In 1809, he was summoned to a modest farmhouse in Caney Fork, Kentucky to assist with what was thought to be a prolonged gestation. McDowell found that the patient, Mrs. Crawford, was not pregnant but was suffering from an enormous ovarian tumor.

The surgeon explained the problem to the patient and prognosticated a life expectancy of one or two years without surgery. He suggested that there might be a chance for recovery if the tumor were removed surgically, but then went on to explain that neither he nor any other surgeon had performed this operation before. He expressed a willingness to do the surgery, which was her only hope of survival, if she would come to his Danville home for the operation.

Groh* described this example of frontier informed consent as follows: "The sufferer had to choose between the probability of death at once, and the certainty of death a little later. She had to weigh her responsibilities to her four small children. And she must have thought a lot about the

*Groh G: Doctors of the frontier. *American Heritage* 14:10, (April) 1963.

sheer physical ordeal which a decision in favor of surgery entailed. It was winter and Danville lay about sixty miles away over steep and twisting trails. Every mile would be an agony in her condition, but only in that direction lay life. On a December day she made her decision. Leaving her husband, Thomas, in charge of the children, she set off on horseback, resting her swollen abdomen on the pommel of the saddle. The details of her heroic journey are now clouded by legend but somehow she made it."

Two days later — on "a Sunday morning so that the prayers of his church might be with him in his task" — Dr. McDowell performed the first successful ovariectomy. He had two assistants and a nurse, but the patient did not have the benefit of anesthesia, which did not yet exist. The surgery took only twenty-five minutes. On the fifth post-operative day, the surgeon was astonished to find his patient making her own bed. Mrs. Crawford, who climbed back on her horse three weeks later and returned to her family, lived thirty-three more years.

This anecdote tells it all! Informed consent means explaining the procedure and the risks, and allowing the patient to decide whether to accept those risks. Unencumbered with third party payment, liability insurance, and risks of malpractice claims, this patient and this surgeon knew what to do — and did it. A.K.

Doctors Care About People

Have you had the experience of explaining the advantages and disadvantages of a career in medicine to your son or daughter — or another youngster — lately? If so, did you find yourself discussing the personal qualities that the future physician should have? Did you include the thought that the doctor must *like people* if he is to be a success?

The doctor-patient relationship, which is a series of human experiences, is predicated on a foundation of concern for the patient's well-being by the practitioner. Although "concern" may ultimately be transposed into "fondness," can one be *concerned* about his patient without *liking* him? Obviously one can.

The fact is that some patients act in an undesirable — even subhuman — fashion at times. Consider the rapist or mugger who is shot by police while being pursued and later requires surgical attention. Although this is an extreme example, all physicians regularly serve individuals who may displease them in a variety of ways, at times. When this situation is turned about, however, we must admit that some physicians also act in a way which displeases their patients at times. Such verities simply point up the potential frailty of human relations, including the doctor-patient relationship.

It is a prevalent myth that research physicians and others (e.g., surgical subspecialists, radiologists, and laboratory physicians) are underendowed with the "milk of human kindness." Those who have had the rare privilege of knowing Dr. Charles Best, co-discoverer of insulin, recognize that nothing could be farther from the truth. Whole armies of research workers and *technical-type* physicians lay bare the falsity of that misleading concept.

Physicians — of all varieties — in the final analysis are *people-people.* They may enjoy working with computers, telemetering devices, and standard deviations, but, they *care* about people. A. K.

Cover Art Available

William Arthur Smith, the artist who designed and executed the special cover for *The Journal,* MSNJ, for the Bicentennial Year, has agreed to make the design available to a limited number of members of the Society on a "first-request" basis. The primary "oeuvre d'art" is a woodcut from which Mr. Smith will "pull" individual prints. Each print will be signed and thus will be an original work of art. If you are interested in having one of these for your office or home, please contact the artist directly to inquire about cost and to place an order: William A. Smith, Windy Bush Road, Pineville, Pennsylvania 18946.

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t Health and Nutrition Examination Survey, DHEW Pub. No. (HRA) 219-1, National Center for Health Statistics, Rockville, Maryland. (This rt indicates that approximately 95% of the children 1-5 years old had intakes *below* the standard set by the Food and Nutrition Board of the onal Academy of Sciences.)

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Foot of patient with acute gouty arthritis as seen by conventional x-ray.

Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal joint of the great toe of a patient with acute gou arthritis. This increased uptake probably results fro increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

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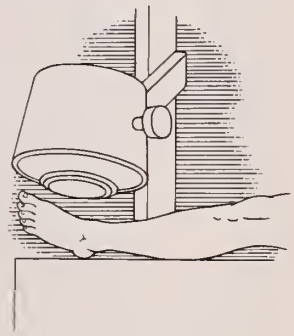
addendum

Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

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Contraindications: Children 14 years of age and under; pregnant wom and nursing mothers; active gastrointestinal lesions or history of recurre gastrointestinal lesions; allergy to aspirin or indomethacin.

Warnings: *Gastrointestinal Effects:* Because of the occurrence and, times, severity of gastrointestinal reactions, be continuously alert for a sign or symptom signaling a possible gastrointestinal reaction. The ris of continuing therapy with INDOCIN in the face of such symptoms mu be weighed against the possible benefits to the individual patient. Gastr intestinal effects may be reduced by giving the drug immediately aft meals, with food, or with antacids. Use greater care in aging patients.

Ocular Effects: Corneal deposits and retinal disturbances, including tho of the macula, have been observed in some patients on prolonged therap Discontinue therapy if such changes are observed. Ophthalmologic exa ination at periodic intervals is desirable in patients on prolonged therap

Central Nervous System Effects: INDOCIN may aggravate psychiatr disturbances, epilepsy, and parkinsonism, and should be used with co siderable caution in patients with these conditions. If severe CNS adver reactions develop, discontinue the drug.

Precautions: Blurred vision may be a significant symptom that warrants thorough ophthalmologic examination. Patients should be cautioned abo engaging in activities requiring mental alertness and motor coordinatio as driving a car. Headache which persists despite dosage reduction quires complete cessation of the drug. May mask the usual signs a symptoms of infection; therefore, the physician must be continually the alert for this and should use the drug with extra care in the presen of existing controlled infection. After the acute phase of the disease under control, an attempt to reduce the daily dose should be made peatedly until the patient is off entirely.

Adverse Reactions: *Gastrointestinal Reactions:* Single or multiple ulce tions of the esophagus, stomach, duodenum, or small intestine, includi perforation and hemorrhage, with fatalities in some instances; rarely, int tinal ulceration has been associated with stenosis and obstruction; gast intestinal bleeding without obvious ulcer formation; perforation of p existing sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increas abdominal pain in ulcerative colitis patients or development of ulcerati colitis and regional ileitis; gastritis, which may persist after the cessati of the drug; nausea, vomiting, anorexia, epigastric distress, abdomi pain, and diarrhea.

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Hematologic Reactions: Aplastic anemia, hemolytic anemia, bone marr depression, agranulocytosis, leukopenia, and thrombocytopenic purpu Since some patients manifest anemia secondary to obvious or occult g trointestinal bleeding, appropriate blood determinations are recommend

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Central Nervous System Reactions: Psychic disturbances including p chotic episodes, depersonalization, depression, and mental confusi coma; convulsions; peripheral neuropathy; drowsiness; lightheadedne dizziness; syncope; headache.

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ORIGINAL ARTICLES

The cardiotoxic effects of phenothiazines, tricyclic antidepressants, and lithium are discussed. The fact that most drugs have multiple pharmacological effects rather than the single-intended therapeutic one has to be kept in mind, particularly when treating patients with pre-existing organic heart disease. Any drug that alters repolarization of the myocardium by increasing electrical nonhomogeneity of repolarization may set the stage for arrhythmias. The need for individualization of psychotropic drug therapy and good medical supervision is emphasized.

Cardiotoxic Effects of Psychotropic Drugs

Elmar G. Lutz, M.D./Wayne*

There is general consensus that therapeutic doses of phenothiazines, tricyclic antidepressants, and lithium cause typical changes in the electrocardiogram. In most cases these abnormalities are not accompanied by other clinical manifestations. While some authors stress the benign nature of such changes, other investigators view the cardiac abnormalities, particularly those produced by tricyclic drugs, with increasing concern.[1] Phenothiazine treatment has been associated with instances of sudden, unexpected deaths due to ventricular arrhythmias.[1]

The importance of a careful medical history and physical examination in psychiatric patients, both at initial contact and during the course of treatment, cannot be overemphasized. The following two brief reports emphasize this concern. Case one describes sudden death during chlorpromazine treatment in a young man. Case two concerns the development of cardiac arrhythmia in a young woman with undiagnosed rheumatic heart disease who was being treated with small doses of amitriptyline.

Case Reports

Case 1 — A 27-year-old male patient had been hospitalized in a state hospital for a period of 16 months with the diagnosis of schizophrenic reaction, chronic, paranoid type. He had received various tranquilizers. Chlorpromazine was prescribed most often and had been given exclusively in dosages of 300 to 450 mg daily, in three divided doses, for four months prior to his sudden death.

There had been no history of serious medical illness or demonstrable abnormalities on physical examination shortly prior to his death. While walking upstairs to his ward following lunch, the patient suddenly collapsed and died. Attempts at resuscitation were unsuccessful. Post-mortem examination did not reveal any significant findings.

Case 2 — A 26-year-old female patient was treated for a depressive reaction with amitriptyline 25 mg three times daily. Within ten days of treatment, exertional dyspnea and multifocal extrasystoles developed. This complication led to studies which established the diagnosis of rheumatic heart disease, a condition which was previously unknown to the patient and her family physician. She did have a history of chorea minor at age 13. She subsequently underwent a successful commissurotomy. It is reasonable to assume that the rheumatic heart disease predisposed this patient to the cardiac arrhythmia, which was triggered by a relatively small dose of a tricyclic antidepressant.

Cardiotoxic Effect of Phenothiazines

This subject was discussed in detail in the proceedings of a symposium on drug toxicity held in Montreal,[3] in a review by Leestma and Koenig,[1] and in several other papers. While it has been demonstrated that virtually all phenothiazines have some ability to modify the electrocardiogram (ECG), most attention has been focused on the most autonomically active phenothiazine, thioridazine, and its analogues.[4] Thioridazine and, to a lesser extent, chlorpromazine can produce the following ECG changes: prolongation of the P-R and Q-T intervals; rounding, broadening, flattening, inversion, notching, or splitting of the T-wave, widening of the QRS complex, depression of the S-T segment, splintering of the R-wave, ventricular and atrial tachycardia, bigeminal rhythm, atrial premature beats, ventricular fibrillation, and variable degrees of heart block.[5-10]

Certain ECG abnormalities (T-wave changes, S-T segment depression, Q-T, and P-R interval prolongation) can be detected in a substantial proportion of patients receiving thioridazine.

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They have been shown to occur in greater than 50 percent of patients receiving from 100 to 300 mg per day and in more than 70 percent of patients receiving from 150 to 900 mg per day.[9] Age or duration of treatment does not seem to play a significant role.[9]

The same ECG repolarization changes which are regarded as specific for phenothiazine drugs[9] occurred in 50 percent of patients on varying doses of chlorpromazine and in about 16 percent of patients receiving trifluoperazine.[7] Of the non-phenothiazine neuroleptics, the thioxanthenes produce ECG abnormalities but no such effects have been seen with the butyrophenones. The same phenothiazine-induced repolarization effects have also been demonstrated in experimental animals.[6]

That repolarization changes in the heart can be produced by phenothiazine and are not artifacts is further shown by the fact that previously normal ECGs of non-medicated patients can be altered by thioridazine and chlorpromazine and can revert to normal within a week after the drugs are discontinued.[10] Wendkos was able to achieve a reversal of the repolarization defects to normal through the administration of ergotamine, organic nitrates, and potassium salts.[10]

Sudden Death

We have become increasingly concerned in recent years about sudden unexplained death occurring during phenothiazine treatment. Most of the reported cases were young patients, in apparent good health, who were taking fairly high doses of one or more of the phenothiazines.[1] The significance of the electrocardiographic effects of phenothiazines in relation to sudden death is apparent. Well-documented cases of arrhythmogenic deaths have been reported among others by Kelly, *et al.*[5] and Hollister and Kosek.[11] In most cases death occurred without warning following a syncopal episode which appeared "like a characteristic Adam-Stokes attack," with or without a few convulsive movements.[11] The mechanism of death remains unclear. However, participants in a recent conference discussed the cardiologic complications of psychotropic drugs and were unable to arrive at any definite conclusions concerning the causal association between abnormalities and sudden death.†

Cardiotoxicity of Tricyclic Antidepressants

Cardiac abnormalities produced by tricyclic antidepressants were reviewed by Lavallee[12] and by Hippius,[13] while most of the initial information on imipramine and related substances stems from two Scandinavian surveys.[14, 15] According to these studies the cardiotoxic effects of tricyclic antidepressants resemble those of thioridazine and occur in approximately 20 percent of patients on therapeutic doses.

While ST-T changes occur frequently,[14, 15] A-V conduction defects have been described occasionally.[16, 17, 18] Cardiac standstill occurred in one patient who had been pretreated with guanethidine.[19] Several other reports[20-29] show a presumptive relationship between the administration of tricyclic antidepressants and various cardiac complications. Surveys of hospital records[24, 25] and prospective surveys of toxicity[14, 26] which attempted to evaluate cardiac effects of tricyclic therapy led to contradictory conclusions.

A recent report[18] described the development of a 2:1 atrioventricular block during treatment with imipramine in a 74-year-old man with a three-year history of right bundle-branch block. Serial determinations of blood imipramine concentrations and cardiographic studies showed that the heart block was directly related to the plasma concentration of the drug and occurred below the atrioventricular node in the His-Purkinje system. In this case, a therapeutic benefit could not be obtained without producing a serious side-effect. The authors concluded that extreme caution should be exercised in using tricyclic antidepressants in patients with bundle-branch disease and that the pulse and ECG should be monitored frequently in such patients.[18] Variation in drug metabolism may result in a tenfold difference in plasma levels among patients receiving equal oral doses of tricyclics.

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†NIMH, Early Clinical Drug Evaluation Unit, May 1974.

Tricyclic Drug Overdosage and Sudden Death

A variety of conduction defects and arrhythmias have been reported in cases of serious tricyclic overdose.[19, 27, 28] Davis, *et al.*[29] reviewed the literature on the effects of overdosage with tricyclic antidepressants and other psychotropic drugs associated with attempted suicide or accidental poisoning. Of 233 adults who committed or attempted suicide with various tricyclic drugs, slightly less than 10 percent died. Almost half of 34 children who accidentally took imipramine or cogeners, however, died. Goel and Shanks[30] studied 60 children who were hospitalized for poisoning by amitriptyline or imipramine, which was prescribed for nocturnal enuresis in the patients or their siblings. They concluded that cardiac arrhythmias which are induced by these two drugs are common and dangerous and make hospitalization of these patients imperative for continuous cardiac monitoring. Due to the early recognition of the cause of toxicity, only one of the children died.

Doses of amitriptyline or imipramine in excess of 1200 mg are extremely toxic; fatalities in adults are common after ingestion of 2500 mg or more. Amitriptyline may be somewhat more toxic than imipramine but the demethylated metabolites of both drugs are somewhat less so.[31] Symptoms of acute poisoning by overdosage of the tricyclic drugs include coma, myoclonus, choreoathetoid movements, hyperreflexia, hyperthermia and convulsions, in addition to the usual evidence of atropine-like toxicity (mydriasis, tachycardia, hypotension, and urinary retention).

The major features are disturbances of cardiac rhythm and conduction, including tachycardia, atrial fibrillation, ventricular flutter, and atrioventricular or intraventricular block. Coma for more than 24 hours is unusual.[29]

Neurologic effects of mild tricyclic drug poisoning include some depression of consciousness. Steel and collaborators[32] noted that many patients show ataxia and other disturbances of posture out of proportion to their drowsiness, while children showed extreme and sudden agitation, alternating with periods of drowsiness. Symptoms generally develop within one to four hours following ingestion of the drug.

Manifestations of toxicity can be reversed effectively by the administration of anticholinsterases, particularly physostigmine.[33-36] Doses of 0.5–1.0 mg may be injected intramuscularly and repeated in 10 minutes if the pulse rate is not slowed. Electric cardioversion should be considered in the face of persistent arrhythmias. Since the cardiac complications may be fatal, ECG monitoring is advised.

In reviewing death from tricyclic antidepressants it is interesting to note that a number of patients showed progressive clinical improvement in the level of consciousness and the circulatory status and then suddenly died, 12 to 60 hours after ingestion of the drug.[29, 32] This suggests that careful clinical management should continue well beyond the clinical recovery from central nervous system depression and cardiac arrhythmia.

Cardiotoxic Effects of Lithium

General medical knowledge of cardiotoxicity of lithium is of increasing importance since this compound is being widely used for manic-depressive illness and seems promising in the treatment of other neuropsychiatric disorders. Its initial use as a salt-substitute was complicated by a number of fatalities. Corcoran, *et al.*[37] described seven cases of lithium intoxication with fatalities in two patients with arteriosclerotic heart disease. Hanlon, *et al.*[38] described one death among four cases of lithium intoxication in a patient with arteriosclerotic heart disease, whose electrocardiogram showed premature contractions and intraventricular block. These cases suggest that administration of high doses of lithium to patients with cardiac disease who are on a low-salt diet can lead to death.

Most patients who are treated with lithium do not receive it as a salt-substitute and are not on a low-salt diet. Schou, *et al.*[39, 41] and Andreani[40] observed T-wave depression in 15 to 33 percent of psychiatric patients taking lithium. Demers and Heninger[42, 43] reported T-wave depression in detailed studies of 15 patients. The extent of the

T-wave depression was not related to sodium intake or to serum lithium ion levels. There was no evidence of cardiac damage as measured by normal serum enzyme studies and circulation times, and there were no other consistent ECG changes. They[42, 43] concluded that lithium carbonate treatment has a consistent, but benign and reversible effect on the myocardium but that some caution should be exercised in administering lithium to patients with heart disease.

Pathophysiological and Pharmacological Considerations

Phenothiazines — Small doses of phenothiazines seem to have an anti-arrhythmic effect, possibly related to a delay in repolarization of the myocardium. Larger doses affect the conduction system causing arrhythmias or cardiac arrest.[44] Alexander and Nino[45] felt that phenothiazines and tricyclic antidepressants may produce a cardiomyopathy that is particularly dangerous to those patients with preexisting cardiac disease. Wendkos[10] suggested that these changes are benign in nature and that hypokalemia may be responsible for them. Ban and St. Jean[7] were unable to demonstrate alterations in serum electrolytes to explain the electrocardiographic changes, however, intracellular electrolytes and their activity are not easily evaluated and may not correlate with serum electrolyte levels.

Leestma and Koenig[1] hypothesized that phenothiazine inhibition of the sodium and potassium-dependent adenosintriphosphatase (ATPase) enzyme system found in membranes of nerve, muscle, and so on, may be responsible for the electrocardiographic changes. It has been shown that cardiac glycosides (digitalis, ouabain, and others)[46] and mercurial diuretics[47] have a powerful inhibitory effect on this system. Phenothiazines also inhibit other enzymes in nerve, brain, and muscle membranes.[47] It had been suggested that both groups of drugs may be able to chelate necessary enzyme-activating metals.[48] Magnesium is the activating metal required for the sodium-potassium-dependent ATPase system.

Patients who are receiving thioridazine excrete increased amounts of magnesium and sodium in their urine.[9] Phenothiazine treatment of experimental animals decreases myocardial sodium concentration as well as sodium and potassium ion uptake by the brain.[9]

While the importance of these effects is not precisely known, Leestma and Koenig[1] feel it reasonable to assume that they play an important role in myocardial repolarization. Important interrelationships exist between the autonomic nervous system and the phenothiazines. These authors suggest that elevated levels of catecholamines, present during stress in psychiatric and non-psychiatric patients, may predispose to phenothiazine-induced cardiac effects. It is well known that epinephrine alone and in combination with sensitizing agents[49] can produce cardiac arrhythmias.

Hypotension which is a frequent side effect may rarely cause death by itself or by complicating pre-existing cerebral and myocardial ischemia. Rosati[50] discussed several possible mechanisms by which phenothiazine may produce hypotension. Sudden death may occur with cessation of cardiovascular competence on an arrhythmogenic or a hypotensive basis or both.

Phenothiazines have an almost uniform ability to produce alpha-adrenergic blockade, i.e., suppression of the vasoconstricting effects of epinephrine. This is of practical importance since reversal of the epinephrine effect with administration of that drug during phenothiazine shock may accentuate the drop in blood pressure and cause death.

Richardson and associates[51] demonstrated myocytolysis of myocardial cells in victims of sudden death who were receiving phenothiazines. Intramyocardial arterioles showed deposition of mucopolysaccharide material and associated microinfarcts. The myocardial lesions were subendocardial along the entire course of the right and left A-V bundle and in the papillary muscles. These findings, according to these authors were specific for phenothiazine toxicity and were observed in certain patients who had shown S-T segment and T-wave abnormalities prior to death. Syncopal episodes were observed with some frequency in patients who

later died suddenly. Transitory increase of serum transaminases gave further evidence of myocardial microinfarcts. Similar pathological findings were reported by Kelly, *et al.*[5] in two patients with sudden death during thioridazine treatment.

Tricyclic Antidepressants — The major pharmacologic action of the tricyclic compounds is cholinergic blockade, therefore atropine-like side effects, as well as orthostatic hypotension and drowsiness, occur frequently. Anticholinergic activity is believed to be responsible for tachycardia,[19] a usual feature of mild tricyclic drug intoxication. Larger doses may have a direct toxic effect on the myocardium.[45] Tricyclic drugs also tend to exhibit a quinidine-like effect, in that they prolong atrioventricular conduction time (first-degree atrioventricular block).[52] The underlying mechanism for impaired electrical conduction remains unknown. Williams and Sherter[19] presented clinical and experimental evidence to support the hypothesis that tricyclic antidepressants cause impaired cardiac conduction through a mechanism of catecholamine blockade and depletion. Cardiac muscle has a great avidity for tricyclic antidepressants. In experiments with isolated cardiac tissue slices, tricyclics have been shown to block the uptake of catecholamines and hence expose them to enzymatic degradation. These drugs have been shown to block certain effects of catecholamines on cardiovascular tissue. Treatment with tricyclic antidepressants diminishes the increase in heart muscle phosphorylase activity that epinephrine usually causes and reduces the pressor response to a given dose of epinephrine.[19]

The catecholamine-blocking and -depleting effects of tricyclic antidepressants may explain the profound hypotension and episodes of cardial standstill seen in patients who have taken a massive overdose of these drugs. Recent reports indicate that the manifestations of tricyclic drug toxicity can be effectively reversed by the administration of physostigmine.[33 36] In addition to its clinical usefulness, Rasmussen[28] had previously reported that physostigmine reduces the fatality rate in toxicity studies of laboratory animals treated with lethal doses of tricyclic drugs.

Since the clinical effectiveness and potential toxicity of tricyclic antidepressants are functions of the amount of free drug available (i.e., the non-protein bound fraction), and since protein-binding of imipramine is greater in adults than in children,[53] Winsberg and associates[54] think it reasonable to assume that children are at a greater risk for the development of potentially dangerous side effects. This is important because of the increasing use of imipramine in the treatment of hyperactive children and children with enuresis. These investigators advise against the administration of imipramine to children with significant heart disease.

Lithium — Although depression of T-waves in the ECG is a non-specific finding which may be produced by various metabolic, toxic or drug-related factors, there is evidence to suggest that lithium-induced changes in the intracellular-extracellular electrolyte balance may be related to the T-wave changes observed during lithium therapy. Carmeliet,[55] using cat ventricular myocardium, demonstrated efflux of both sodium and potassium from the myocardium when lithium was placed into the bathing medium. This resulted in a considerable intracellular potassium loss. Since the lithium ion leads to complex changes of fluid and electrolyte metabolism, including calcium and magnesium,[56] it is not possible at this time to conclude that lithium ions directly affect the myocardium. Lithium carbonate diminishes central catecholaminergic activity by facilitating the reuptake of catecholamines.[57] It is unclear whether this finding has any relation to the cardiotoxicity of the lithium ion.

Conclusions

Many psychotropic drugs produce electrocardiographic abnormalities. The majority of reports indicate that drug-induced abnormalities are benign and disappear within a few days after the drugs have been discontinued. Yet, an increasing number of reports suggest that such changes are not always benign and that serious cardiac disorders or even death may occur as the result of treatment with psychotropic drugs. Combination of such drugs enhances cardiac toxicity. Tricyclic antidepressants and thioridazine, which most frequently produce "benign" ECG

changes in therapeutic doses are also responsible for the largest number of fatalities in cases of overdosage.[44] While an abnormal electrocardiogram alone might not be cause for changing drugs, any patient with a history of cardiac arrhythmia or one reporting syncopal episodes (which might be associated with runs of ventricular tachycardia) during treatment would best be treated with low-dose drugs. Since the tricyclic antidepressants and phenothiazines are capable of producing a cardiomyopathy that is especially dangerous to those patients with preexisting cardiac disease,[45] a cautious psychopharmacological approach is certainly advised for this type of patient, particularly if he is already receiving medication that may alter cardiac conduction and repolarization.

Tragic complications of modern drug therapy seem to be appearing with increasing frequency. They call for close cooperation among medical specialists from widely divergent therapeutic disciplines. Psychotropic agents carry special hazards because of multiple interactions both with other psychotropic drugs and with drugs prescribed for other purposes. The prescribing physician should be familiar with the myriad adverse effects and symptoms of toxicity by psychotropic drugs and, when necessary, should obtain the cooperation of his colleagues from other disciplines to achieve maximum simplicity of the therapeutic drug regimen.

In the hands of vigilant physicians, the benefit of psychochemical therapy need not be obviated by toxicity effects.

Nonproprietary Name and
Trademark of Drug

Generic Names	Trade Names
1. *Phenothiazine derivatives*	
chlorpromazine	Chlorpromazine HCL, Chlor-PZ, Thorazine
promazine	Sparine
triflupromazine	Vesprin
thioridazine	Mellaril
mesoridazine	Serentil
piperacetazine	Quide
carphenazine	Proketazine
acetophenazine	Tindal
prochlorperazine	Compazine
thioproperazine	Dartal
perphenazine	Etrafon, Triavil, Trilafon
butaperazine	Repoise
trifluoperazine	Stelazine
fluphenazine	Prolixin, Permitil
2. *Tricyclic antidepressants*	
amitriptyline	Elavil, Etrafon, Triavil
desipramine	Norpramine Pertofrane
imipramine	Presamine, Tofranil, Imavate
nortriptyline	Aventyl
protriptyline	Vivactil
doxepin	Adapin, Sinequan
3. *Lithium preparations*	
lithium carbonate	Eskalith Lithane Lithium Carbonate Capsules Lithonate Lithotabs

Bibliography

1. Leestma JE, Koenig KL: Sudden death and phenothiazines. A current controversy. *Arch Gen Psychiat* 18:137-148, 1968.

2. Wertheimer NM: Psychiatric follow-up of children with rheumatic fever and other children's diseases. *J Chronic Dis* 16:223-237, 1963.

3. Lehmann HE and Ban TA, editors: *Toxicity and Adverse Reaction Studies with Neuroleptics and Antidepressants.* Verdun, Quebec Psychopharmacological Research Association, 1965.

4. Tetreault L, Bordeleau JM, Gauthier R, *et al:* Comparative study of TPS 23, chlorpromazine, and placebo in chronic schizophrenic patients. *Dis Nerv Syst* 30, Suppl: 74-84, 1969.

5. Kelly HG, Fay JE, Laverty SG: Thioridazine hydrochloride (Mellaril®): Its effect on the electrocardiogram and a report of two fatalities with electrocardiographic abnormalities. *Can Med Assoc J* 89:546-554, 1963.

6. Graupner KI, Murphree OD, Meduna LJ: Electrocardiographic changes associated with the use of thioridazine. *J Neuropsych* 5:344-350, 1964.

7. Ban TA, St. Jean A: The effect of phenothiazines on the electrocardiogram. *Can Med Assoc J* 91:537-540, 1964.

8. Desautels S, Filteau C, St. Jean A: Ventricular tachycardia associated with administration of thioridazine hydrochloride (Mellaril®): Report of a case with a favorable outcome. *Can Med Assoc J* 90:1030-1031, 1964.

9. Huston JR, Bell GE: The effect of thioridazine hydrochloride and chlorpromazine on the electrocardiogram. *JAMA* 198:16-20, 1966.

10. Wendkos MH: Cardiac changes related to phenothiazine therapy, with special reference to thioridazine. *J Amer Geriat Soc* 15:20-28, 1967.

11. Hollister LE, Kosek JC: Sudden death during treatment with phenothiazine derivatives. *JAMA* 192:1035-1038, 1965.

12. Lavallee B: Review of the literature — antidepressant drugs and the electrocardiogram. In *Toxicity and Adverse Reaction Studies with Neuroleptics and Antidepressants.* Lehmann HE and Bon TA (editors). Verdun, Quebec

Psychopharmacological Research Association, 1965. Pp 129-132.

13. Hippius H: Nebenwirkungen der psychopharmaka. *Anglio German Med Rev* 3:58-66, 1965.

14. Kristiansen ES: Cardiac complications during treatment with imipramine (Tofranil®). *Acta Psych Neurol Scan* 36:427-442, 1961.

15. Rasmussen EB, Kristiansen P: Ecg changes during amitriptyline treatment. *Amer J Psychiat* 119:781-782, 1963.

16. Smith RB, Rusbatch BJ: Amitriptyline and heart block. *Br Med J* 3:311, 1967.

17. Asberg M, Cronholm B, Sjoquist F, *et al:* Correlation of subjective side effects with plasma concentration of nortriptyline. *Br Med J* 4:18-21, 1970.

18. Kantor SJ, Bigger JT, Glassman AH, *et al:* Imipramine-induced heart block. A longitudinal case study. *JAMA* 231:1364-1366, 1975.

19. Williams RB, Sherter C: Cardiac complications of tricyclic antidepressant therapy. *Ann Intern Med* 74: 395-398, 1971.

20. Freyhan FA: Clinical effectiveness of Tofranil® in the treatment of depressive psychosis. *Can Psychiatr Assoc J* (suppl) 4:586-599.

21. Sarwer-Foner G, Grauer H, Mackay J, *et al:* Depressive states and drugs: A study of the use of imipramine in open psychiatric settings. *Service J Can* 15:359-382, 1959.

22. Mann AM, Catterson AG, MacPherson AS: Toxicity of imipramine: Reports of serious side effects and massive overdosage. *Can Med Assoc J* 81:23-28, 1959.

23. Sloman L: Myocardial infarction during imipramine treatment of depression. *Can Med Assoc J* 82:20-22, 1960.

24. Jick H, Slone D, Shapiro S, *et al:* Adverse reactions to the tricyclic antidepressant drugs. *Lancet* 1:529-531, 1972.

25. Moir DC, Crooks J, Cornwell WB, *et al:* Cardiotoxicity of amitriptyline. *Lancet* 2:561-564, 1972.

26. Muller OF, Goodman N, Bellet S: The hypotensive effect of imipramine hydrochloride in patients with cardiovascular disease. *Clin Pharmacol Ther* 2:300-307, 1961.

27. Harthorne JW, Marcus AM, Kay M: Management of massive imipramine overdosage with mannitol and artificial dialysis. *N Engl J Med* 268:33-35, 1963.

28. Rasmussen J: Amitriptyline and imipramine poisoning. *Lancet* 2:850-851, 1965.

29. Davis JM, Cartlett E, Termini BA: Overdosage of psychotropic drugs: a review. *Dis Nerv Syst* 29:157-164, 246-256, 1968.

30. Goel KM, Shanks RA: Amitriptyline and imipramine poisoning in children. *Br Med J* 1:261-263, 1974.

31. Hollister LE: *Clinical Use of Psychotherapeutic Drugs.* Springfield, Illinois, Charles C Thomas, 1973. Pp 107-108.

32. Steel CM, O'Duffy J, Brown SS: Clinical effects and treatment of imipramine and amitriptyline poisoning in children. *Brit Med J* 3:663-667, 1967.

33. Falletta JM, Stasney CR, Mintz AA: Amitriptyline poisoning treated with physostigmine. *S Med J* 63:1492-1493, 1970.

34. Slovis T, Ott J, Teitelbaum D, Lipscomb W: Physostigmine therapy in acute tricyclic antidepressant poisoning. *Clin Toxicol* 4:451-459, 1971.

35. Burks JS, Walter JE, Rumack BH, *et al:* Tricyclic antidepressant poisoning: Reversal of coma, choreoathetosis, and mycolonus by physostigmine. *JAMA* 230:1405-1407, 1974.

36. Snyder BD, Blonde L, McWhirter WR: Reversal of amitriptyline intoxication by physostigmine. *JAMA* 230:1433-1434, 1974.

37. Corcoran A, Taylor D, Page H: Lithium poisoning from the use of salt substitutes. *JAMA* 139:685-688, 1949.

38. Hanlon L, Romaine M, Gilroy F, Deitrick J: Lithium chloride as a substitute for sodium chloride in the diet. *JAMA* 139:688-692, 1949.

39. Schou M, Fuel-Nelson N, Stromgren E, Voldley H: Behandling of maniske psykoser med lithium. *Vgeskr Laeg* 117, 1955.

40. Andreani G: Rilieve electrocardiografici durante il trattamento di malattie mentali con sali di litio. *G Clin Med* 38:1759-1775, 1957.

41. Schou M: Electrocardiographic changes during treatment with lithium and with drugs of the imipramine type. *Acta Psychiatr Scan* (suppl) 39:168-171, 1963.

42. Demers R, Heninger G: Electrocardiographic changes during lithium treatment. *Dis Nerv Syst* 31:667-673, 1970.

43. Demers R, Heninger G: Electrocardiographic T-wave changes during lithium carbonate treatment. *JAMA* 218:381-386, 1971.

44. Crane GE: Cardiac toxicity and psychotropic drugs. *Dis Nerv Syst* 31:534-539, 1970.

45. Alexander CS, Nino A: Cardiovascular complications in young patients taking psychotropic drugs. *Am Heart J* 78:757, 1969.

46. Auditore JV: Sodium-potassium activated G-strophanthin sensitive ATPase in cardiac muscle. *Pros Soc Exp Biol Med* 110:595-601, 1962.

47. Davis PW, Brody TM: Inhibition of Na+K+-activated adenosine triphosphatase activity in rat brain by substituted phenothiazines. *Biochem Pharmacol.* 15:703-710, 1966.

48. Guth PS, Spirtes MA: The phenothiazine tranquilizers. Biochem and Biophysical Actions. *Int Rev Neurobiol* 7:231-278, 1964.

49. Madan BR: Some cardiovascular actions of thioridazine hydrochloride. *Arch Int Pharmacodyn.* 144:299-309, 1963.

50. Rosati D: Hypotensive side effects of phenothiazine and their management. *Dis Nerv Syst* 25:366-369, 1964.

51. Richardson HL, Graupner KI, Richardson ME: Intramyocardial lesions in patients dying suddenly and unexpectedly. *JAMA* 195:254-260, 1966.

52. *AMA Drug Evaluations*, ed 2. Acton, Massachusetts, Sciences Group, 1973. P 359.

53. Winsberg BG, Perel JM, Hurwic MJ, *et al:* Factors in imipramine metabolism in children. Protein binding considerations in phenothiazines and structurally related compounds. In *Advances in Biochemical Psychopharmacology*, Vol 9. Edited by Forrest IS, Carr CJ, Usdin E. New York, Raven Press, 1974. Pp 425-431.

54. Winsberg BG, Goldstein S, Yepes LE, *et al:* Imipramine and electrocardiographic abnormalities in hyperactive children. *Amer J Psychiatr* 132:542-545, 1975.

55. Carmeliet E: Influence of lithium ions on the transmembrane potential and cation content of cardiac cells. *J Gen Physiol* 47:501-530, 1963.

56. Schou M: Biology and pharmacology of the lithium ion. *Pharmacol Rev* 9:17-58, 1957.

57. Colburn RW, Goodwin FK, Bunney WE, *et al:* Effect of lithium on the uptake of noradrenaline by synaptosomes. *Nature* 215:1395-1397, 1967.

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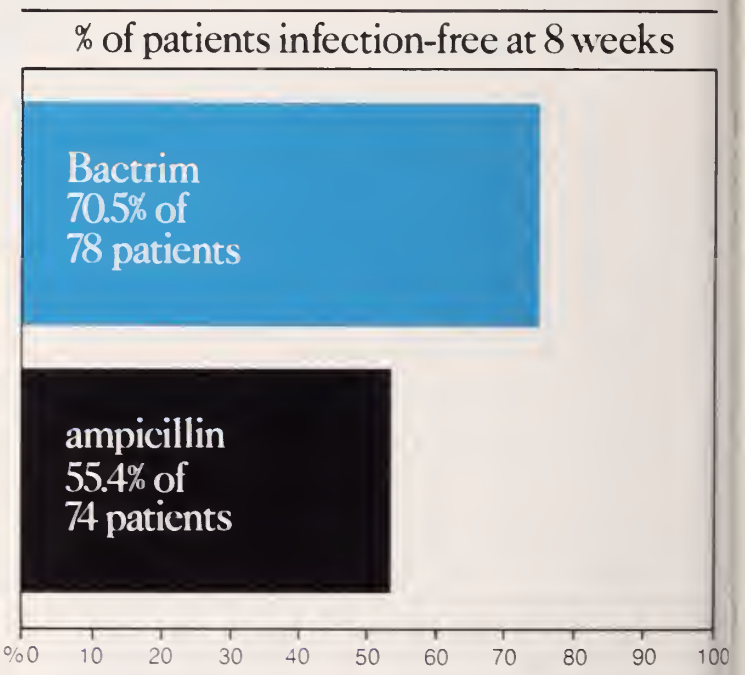


*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the per cent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

ROCHE

Please see last page of this advertisement for summary of product information.

10-day Bactrim™ therapy outperforms 10-day ampicillin therapy

In a multicenter double-blind study of patients with chronic or frequently recurrent urinary tract infection, 10-day therapy with Bactrim outperformed ampicillin 10-day therapy by 27.2% when comparing patients who maintained clear cultures for 8 weeks. When compared at the end of therapy, 90.4% of 83 Bactrim-treated patients had clear cultures in contrast to 81.7% of 82 ampicillin-treated patients. Of even greater significance is the fact that a higher percentage of Bactrim-treated patients maintained clear cultures for 8 weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml urine.

Adverse reactions noted in this study were relatively mild, *e.g.*, nausea, vomiting, rash. However, more serious side effects can occur with the agents studied. Please see product information of each manufacturer for complete listing of adverse reactions.

Note: Bactrim single strength tablets were used in these clinical trials. However, studies have established the bioequivalency of Bactrim DS with the single strength tablets.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

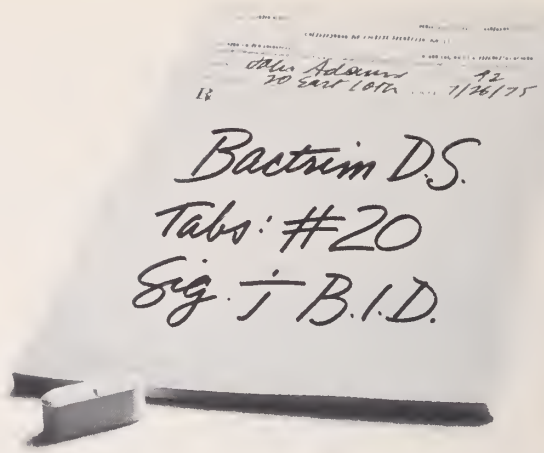
double strength tablets Just 1 tablet B.I.D.

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.



Significant Prescribing Factors

- Primarily for cystitis and pyelonephritis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*
- Usual therapy 10 to 14 days.
- Contraindicated during pregnancy or the nursing period.
- Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.
- SxT sensitivity discs available to test sensitivity to Bactrim.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

double strength tablets

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoli tive dermatitis, anaphylactoid reactions, periorbital edema, co junctival and scleral injection, photosensitization, arthralgia an allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomat tis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pa creatitis. *CNS reactions:* Headache, peripheral neuritis, mental d pression, convulsions, ataxia, hallucinations, tinnitus, vertigo, i somnia, apathy, fatigue, muscle weakness and nervousness. *Misce laneous reactions:* Drug fever, chills, toxic nephrosis with oligur and anuria, periarteritis nodosa and L. E. phenomenon. Due to ce tain chemical similarities to some goitrogens, diuretics (acetazol mide, thiazides) and oral hypoglycemic agents, sulfonamides ha caused rare instances of goiter production, diuresis and hypoglyc mia in patients; cross-sensitivity with these agents may exist. rats, long-term therapy with sulfonamides has produced thyro malignancies.

Dosage: Not recommended for children under 12. Usual adult do age: 1 DS tablet (double strength), 2 tablets (single strength) 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg t methoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dos packages of 100. Tablets, each containing 80 mg trimethoprim a 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dos packages of 100; Prescription Paks of 40, available singly and trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equiv lent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fru licorice flavored — bottles of 16 oz (1 pint).

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A discussion of the radiographic characteristics of the more common benign masses of the breast has been presented. The need for excellent quality roentgenogram and rigid roentgen criteria is emphasized. The management of obviously benign masses and lesions of indeterminate nature is discussed.

Roentgen Manifestations of Benign Masses of the Breast

Filemon A. Lopez, M.D./Newark
Herman Robinson, M.D./Orange
Orlando Cordero, M.D./Newark*

Roentgenographic examination of the breast has been performed for more than forty years. However, severe limitations were imposed by the relatively inadequate equipment and less than optimum films available. In the past fifteen years, there has been a striking acceleration in the use of diagnostic mammography, spurred not only by technological advances but also by the significant contributions of Gershon-Cohen,[3-8] Egan,[9-13] and many others,[14, 18, 19, 20] who have contributed to our knowledge of mammography. Most of the papers, however, have dealt with malignant lesions, although the great majority of lumps in the breast are not malignant.

The purpose of this paper is to describe the salient radiographic features of some of the more common benign masses of the breast, and to present our concepts concerning the handling of patients with probable benign breast masses.

Cyst — The most common breast lesion is a benign cyst. Such lesions may be single, multiple or conglomerate. Cystic disease, which starts in the late twenties or early thirties, is believed to be due to ductal obstruction secondary to epithelial hyperplasia and/or desquamation of ductal epithelium.

Roentgenographically, a solitary cyst presents as a sharply circumscribed homogenous density which may be spherical or ovoid, depending upon the x-ray projection. The ovoid configuration is most commonly seen on the lateral view, where the suspensory ligaments of the breast tend to inhibit expansion of the cyst in all directions. A solitary cyst is usually easily diagnosed when seen in an atrophic breast. In a glandular breast, the lack of contrast prevents sharp delineation from the surrounding tissue. (Figure 1a) In such cases an attempt should be made to aspirate the cyst, and further confirmation of its benign nature should be sought. As an aid, gas may be injected into the cyst to outline the cyst wall. (Figure 1b) If this is not feasible, a post-

Figures 1a and 1b — 32-year old female with a palpable mass. *Clinical diagnosis* — Indeterminate; *Roentgen diagnosis* — Probable cyst; *Verified diagnosis* — Presence of cyst, confirmed after aspiration and injection of air.

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aspiration mammogram should be obtained to confirm the complete disappearance of the dominant density.

In multi-cystic or conglomerate cystic disease, an occult cancer can easily be overlooked unless the lesion manifests itself by the cardinal signs of malignancy. (Figure 2) Perfect film technique is a prerequisite to attacking such a problem. In this connection Cutler[15] states that there appears to be an association between cysts, papillomata and carcinoma in 20 percent of the cases of carcinoma of the breast.

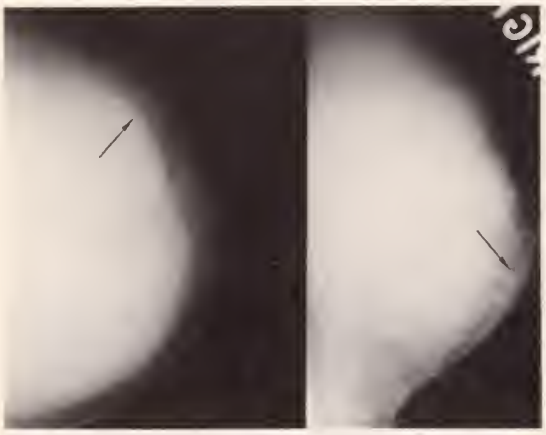

Figure 2 — 42-year old female with a huge mass. Aspirated fluid was serous in character. *Clinical diagnosis* — Cyst; *Roentgen diagnosis* — Carcinoma in a cyst. Note the extension of the tumor inferiorly with involvement of the subcutaneous tissue and skin. *Verified diagnosis* — Carcinoma in a cyst.

Fibrous Disease — This entity generally develops during the same decade as cystic disease and presents as a benign, localized but usually not-encapsulated proliferation of the breast stroma which may form a dominant mass. The lesions tend to be bilateral and symmetrical and are usually situated in the upper outer quadrant of the breast. Radiographically, an area of fibrous disease may simulate carcinoma because irregular borders may be present. However, the tentacles in fibrous disease, which are frequently present, are sharply delineated from the surrounding breast tissue, (Figure 3a) while carcinoma when presenting with tentacles, infiltrates the surrounding tissues. (Figure 3b) Calcifications are generally not seen in fibrous disease and are frequently found in carcinomatous masses.

Figures 3a and 3b — 44-year old female with a lump in the left breast. Both breasts are shown. The left breast shows an area of increased density in the upper quadrant without any defining border. There is no distortion of the surrounding breast stroma. The right breast shows an almost similar density in the corresponding location but there is contraction of bordering breast tissue. *Clinical diagnosis* — Left breast indeterminate. Right breast normal; *Roentgen diagnosis* — Left breast fibrosis. Right breast carcinoma; *Verified diagnosis* — Fibrosis left breast, carcinoma right breast.

Fibroadenoma — Fibroadenoma is a common tumor found in the breast of young females, the lesion is often multiple in one or both breasts.

The natural history of fibroadenoma is well demonstrated by the radiographic characteristics. In its early stage of development, a mass is usually felt clinically but seldom demonstrated radiographically because of the relative lack of adipose tissue in the young breast. When present, adipose tissue acts as an interface with the border of the fibroadenoma. As the individual matures, a change in the structure of the breast permits the radiographic demonstration of the fibroadenoma. At this stage, however, the radiographic picture of the lesion simulates a cyst. The tumor may present as a discrete, homogenous, often lobulated density, outlined by a "halo," or displaced fat. As the woman reaches menopause, another change in the internal architecture of the breast is evident and this coincides with the change in the fibroadenoma itself. The breast becomes more fatty, the fibroadenoma degenerates, and coarse calcifications may appear. Slowly, the well-defined outline of the fibroadenoma disappears so that ultimately, only calcifications will be demonstrated radiographically. (Figure 4) However, pathologically, the fibroepithelial picture of a fibroadenoma is still evident.

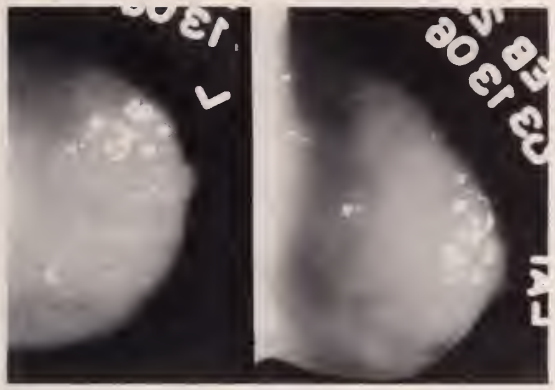

Figure 4 — 52-year old female with a stony hard mass. *Clinical diagnosis* — Carcinoma; *Roentgen diagnosis* — Degenerating calcified fibroadenoma. The distinct outline of the fibroadenoma is lost as the mass degenerates; *Verified diagnosis* — Degenerating fibroadenoma with calcifications.

Giant Fibroadenoma — This lesion occurs in the same age group as fibroadenoma and may present as a rapidly growing mass which is lobulated. (Figure 5) Radiographically, the distinction between the benign and malignant variety (cystosarcoma phylloides) cannot be made. Histologically, these masses are usually more cellular than benign fibroadenoma. The coarse calcifications that may be visible in a degenerating fibroadenoma may also be evident in a degenerating giant fibroadenoma.

Figure 5 — 16-year old female with a rapidly enlarging right breast. No discrete mass was palpable. The normal left breast is presented for comparison. *Clinical diagnosis* — Probable fibroadenoma; *Roentgen diagnosis* — Giant fibroadenoma; *Verified diagnosis* — Giant fibroadenoma.

Lipoma — This fatty tumor presents radiographically as a well-circumscribed lucent area with a thin, dense capsular border which displaces normal breast tissue. A lipoma occurs more frequently in the young female with the fatty breast but may be found in the postmenopausal female as well. (Figure 6) Radiographically a galactocele may simulate a lipoma.

Figure 6 — 55-year old female with a mass of rubbery consistency. *Clinical diagnosis* — Benign mass; *Roentgen diagnosis* — Lipoma. The mass is as radiolucent as the surrounding fat, but presents with a dense, thin, smooth capsule; *Verified diagnosis* — Lipoma.

Intraductal Papilloma — These tumors may be solitary or multiple, arising in different segments of a duct or multiple ducts in one or both breasts. Hicken, *et al.*[16] used contrast injections into the bleeding ducts to demonstrate the presence of a radiolucent defect in diagnosing papilloma. Deaver and MacFarland[17] found that only 75 per cent of these lesions presented with a discharge from the nipple; the discharge was bloody in half the cases. The remainder either presented with a clear serous discharge or completely obstructed ducts with no discharge.

The type of papilloma which arises from a preformed cyst is not infrequent. The great majority of papillomata, however, are formed by a localized overgrowth of the epithelial cells lining the lactiferous ducts and acini. As the tumor enlarges, it may form a localized dilatation of the duct and may completely obstruct, causing the formation of a cystic cavity proximally. The association of dilated ducts, well circumscribed, smooth spheroid mass densities and calcifications within the ducts, makes the diagnosis of intraductal papilloma relatively easy by soft tissue roentgenography without contrast, provided the lesion or lesions are large enough. (Figure 7)

The papilloma that arises from a preformed cyst, however, is more difficult to recognize. The

Figure 7 — 59-year old female with a serosanginous discharge from the nipple. No palpable mass. *Clinical diagnosis* — Intraductal papilloma; *Roentgen diagnosis* — Intraductal papilloma. The localized dilatation of the ducts containing calcium is typical; *Verified diagnosis* — Intraductal papilloma.

lesions may manifest themselves clinically by discoloration of the overlying skin due to hemorrhage. The clinical and roentgenographic demonstration of a benign cystic mass, associated with purplish discoloration of the overlying skin, is indicative of an intracystic papilloma with hemorrhage. (Figure 8)

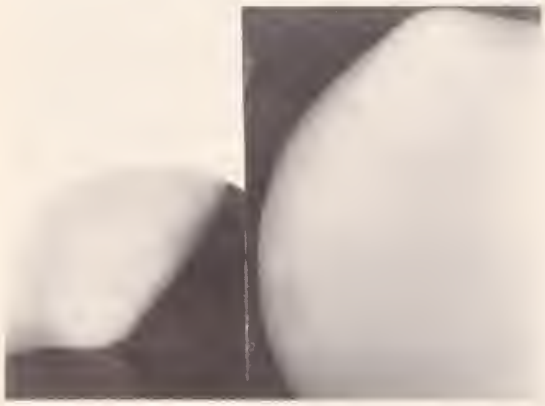

Figure 8 — 50-year old female with a cystic mass adjacent to the skin which suddenly enlarged with subsequent ecchymosis. *Clinical diagnosis* — Benign mass; *Roentgen diagnosis* — Intracystic papilloma with hemorrhage; *Verified diagnosis* — Intracystic papilloma with hemorrhage.

Discussion

Benign masses of the breast can generally be diagnosed accurately by soft tissue roentgenography. The most important prerequisite is impeccable technique. Rigid criteria for the establishment of a benign mass are necessary both to exclude malignant disease and to develop a clear understanding of the proper management of these lesions. A benign breast mass on mammography presents as a dominant density, exquisitely outlined in at least two projections, with or without coarse calcifications.

If the criteria for benignity are definitely present on mammography and on clinical examination, the decision for or against surgical removal may be comfortably separated from any fear of malignancy. Thus, the needs for or the contraindications to surgery will stem from other considerations.

There will, however, undoubtedly be occasions when the radiologist and the clinician will not be certain that the lesion is benign or malignant, e.g., in medullary carcinoma, which frequently has benign radiographic features. In such instances biopsy without delay should be recommended.

Bibliography

1. Solomon A: Betrage zur pathologie und klinik des mammallarzinoms. *Arch Chir* 101:573, 1913.

2. Romagnoli M: La radiologia della mamonella, riv. de radiol. *Fis Med* 6:689, 1931.

3. Gershon-Cohen J and Colcher A E: Evaluation of roentgen diagnosis of early carcinoma of breast. *JAMA* 108:867, 1937.

4. Gershon-Cohen J and Strickler A: Roentgenologic examination of the normal breast: *Am J Roentgenol* 40:189, August, 1938.

5. Gershon-Cohen J and Ingleby H: Roentgenography of cancer of the breast. *Am J Roentgenol* 68:1, July 1952.

6. Gershon-Cohen J and Ingleby H: Carcinoma of the breast. *Radiology* 60:68, January 1953.

7. Gershon-Cohen J and Ingleby H: Diagnosis by x-ray of unsuspected breast cancer and of precancerous states: *Proc Internat Symposium Mammary Cancer Perugia*, 1957.

8. Gershon-Cohen J: Technical improvements in breast roentgenography. *Am J Roentgenol* 84:224, August, 1960.

9. Egan R L: Experience with mammography in tumor institution. *Radiology* 75:894, December 1960.

10. Egan R L: Mammography, an aid to diagnosing breast carcinoma. *JAMA* 182:839, 1962.

11. Egan R L: Fifty-three cases of carcinoma of the breast, occult until mammography. *Amer J Roentgenol* 88:1095, December 1962.

12. Egan R L: Mammography, on symposium of breast disease. *Am J Surg* 106:421, 1963.

13. Egan R L: *Mammography*, Springfield, Ill., Thomas, 1964.

14. Gould H R, Ruzicka Jr, F F, Sanchez-Ubeda Rafael and Perez J: Xeroradiography of the breast. *Am J Roentgenol* 84: 220, 1960.

15. Cutler M: *Tumors of the Breast*, Philadelphia, Lippincott, 1962, p 47.

16. Hicken N F, Best R R and Tollman J P: Mammographic recognition of intracystic papillomas of the breast. *Am J Surg* 36: 611, 1937.

17. Deaver J B, and MacFarland J: *The Breast: Its Anomalies, Its Diseases and Their Treatments*, Philadelphia, Blakiston's, 1917.

18. Leborgne R: Diagnosis of tumors of the breast by simple roentgenography: Calcifications in carcinomas. *Am J Roentgenology* 65:1, 1951.

19. Snyder R E: Mammography and lobular carcinoma *in situ*. *Surg Gynec Obst* 122:255, 1966.

20. Shepard T J, Crile G Jr and Stritmatter W C: Roentgenographic evaluation of calcifications seen in paraffin block specimens of mammary tumors. *Radiology* 78: 967, 1962.

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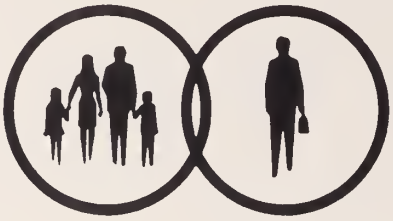

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The William Mason (1856)

Syphilis is diagnosed at its earliest stage by recognition of the chancre with examination of the exudate by darkfield and/or fluorescent antibody identification of the treponeme, but serological studies may also be positive at this stage. All sera with positive reagin tests should also be tested with an FTA-ABS test which, if also positive, should very strongly suggest syphilis until proved otherwise. Effective therapy is indicated by a falling reagin titer which will usually disappear within one year.

Current Thoughts on Laboratory Aids in the Diagnosis of Syphilis

Stanley Burrows, M.D./Camden*

Syphilis is still prevalent, so physicians must remain alert to its occurrence in almost all age groups and all socioeconomic levels. The definitive diagnosis of syphilis depends upon laboratory procedures. Several new tests, such as the fluorescent treponemal antibody absorption test (FTA-ABS) and immunofluorescent staining for treponemal organisms, are now readily available. In additon, there have been recent evaluations of various treponemal and nontreponemal tests in clinical practice. This review is based largely on selected reports during the last few years to provide some help to the clinician in his selection and interpretation of these laboratory procedures without being encyclopedic.

Diagnosis During Primary Stage

The luetic chancre typically occurs at the site of entry of the treponemal organism about three weeks after exposure, but there is no laboratory procedure that can reliably detect the infection before the development of the chancre. Darkfield examination of exudate from the chancre has long been recommended for the diagnosis at this early stage, but most clinical laboratories lack experience in this procedure and the test lacks complete specificity. Immunofluorescent staining of acetone-fixed smears of exudate from the suspected chancre is the method used at the Cooper Medical Center and has several advantages over the darkfield examination: (1) the smear may be taken at any time and place, including the doctor's office, air-dried and brought or even mailed to the laboratory for the test without the urgency of darkfield examination; (2) clinical laboratories have considerable experience with immunofluorescent techniques, and (3) a positive immunofluorescent test is specific for syphilis.

The Venereal Disease Research Laboratory of the Center for Disease Control evaluated a rapid direct fluorescent antibody technique using fluorescein-labelled globulin fractions prepared from the serum of cases of secondary syphilis and made highly specific by absorption with Reiter treponemes.[1] Although the direct fluorescent test was positive in only 80 percent of specimens that had been darkfield positive in the fresh state, the test is specific for Treponema pallidum. The indirect fluorescent test, which is the method in use at Cooper Medical Center, has greater sensitivity than the darkfield examination with maintenance of high specificity. A recent evaluation of the indirect fluorescent method by the Venereal Diseases Reference Laboratory in England showed that only 23 of 26 cases of primary syphilis with a positive indirect fluorescent test on smears from the chancre also had positive darkfield examinations.[2] Although complete reliance cannot be placed upon serological blood studies early in the primary stage of syphilis, a recent study of 77 patients with darkfield-positive primary syphilis showed that 56 (73 percent) had reactive VDRL and 70 (91 percent) had a positive FTA-ABS test, emphasizing that serological blood tests, particularly the FTA-ABS, may be helpful in the

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diagnosis of early syphilis and should be considered when darkfield or immunofluorescent studies are not available or rarely used.[3]

Serological Studies

The reagin tests, such as the VDRL, generally become positive within one week of the appearance of a chancre, and the titer rises to a peak during the secondary stage, followed by a slow decline over a period of years with sharp rise on reinfection or relapse.[4] Effective therapy will result in a fall in titer to become negative in about nine months if treatment was given during the primary stage and in about 12 months after treatment of the secondary stage, with about 2 percent remaining positive for two to three years. Therapy will lead to negative reagin tests in 75 percent of patients with early latent syphilis in five years, but in only 25 percent of patients with late latent syphilis. The presence of a positive serological test of either the reagin or treponemal type is not indicative of immunity because reinfection may still occur.

The VDRL is the most common reagin test performed by clinical laboratories. The rapid plasma reagin (RPR) test is a comparable reagin screening test, which may have greater sensitivity and specificity. A comparison of the VDRL and RPR testing of 203 sera with biological false positive reactions (positive reagin but negative treponemal tests) demonstrated a lower rate of biological false positive tests with the RPR (77 percent) than the VDRL (93 percent) in this selected group.[5] The choice between the RPR and the VDRL is determined by each laboratory and is largely dependent upon personal preferences and technician capabilities. The RPR method has been adapted to automation and the automated test has shown agreement with the VDRL in 94.5 percent of hospitalized subjects with the advantage of greater sensitivity.[6] A comparative study of the two reagin tests in study of 107 patients attending a venereal disease clinic and showing a positive serological treponemal test (FTA-ABS) demonstrated greater sensitivity of the automated reagin test (41.1 percent) than the VDRL (33.6 percent).[7] Both the RPR and the VDRL are essentially screening tests and positive results must be followed up by more specific treponemal tests.

Conversely, the clinician must always be aware that no reagin test is sensitive enough to detect all cases of syphilis. A recent study in England[7] of patients with good evidence of syphilis from history and treponema immobilization tests noted that the FTA-ABS test was specific for syphilis in 73 percent of these selected patients in whom the conventional screening reagin tests were negative. Therefore, a negative reagin test does not rule out syphilis. If there is still a strong clinical suspicion of syphilis, some reliance should be placed on a more specific treponemal test such as the FTA-ABS. However, a positive FTA-ABS may rarely be false as shown by the occurrence of reactive FTA-ABS tests in 3 of 250 nuns with absence of any sexual contact or acquired or congenital syphilis and negative VDRL tests.[8] Ultimately, reliance must be placed upon clinical judgment in deciding whether or not to treat a patient for syphilis if there is conflict between the various laboratory tests, with the realization that a positive FTA-ABS test speaks very strongly for the disease.

The FTA-ABS test may remain positive for life, despite adequate therapy for syphilis. Modification of the FTA-ABS test to detect the IgM antibody instead of the IgG antibody to treponemal organisms has been developed to determine disease activity. The presence of IgM anti-treponemal antibody is indicative of syphilis untreated, inadequately treated, recently treated or reinfected, with negative test results in about two years after treatment.[4] The IgM-FTA-ABS test can be extremely valuable for the early detection of congenital syphilis. The IgM antibody does not cross the placenta and its occurrence in the newborn indicates active disease.[9, 10] Unfortunately, the IgM-FTA-ABS test is not readily available.

An atypical beaded fluorescent reaction has been noted in lupus erythematosus and other collagen diseases.[11-16] This occurs more commonly in collagen diseases than a false positive VDRL and has been reported in 7-18 percent of patients with systemic lupus erythematosus, 16-40 percent with rheumatoid arthritis, 0-4 percent with scleroderma, 6 percent with Sjogren's syndrome, and 20-40 percent with mixed connective tissue disease and miscellaneous collagenoses.[14-16] The phenomenon is labile and best

demonstrated on fresh sera. There is considerable loss of this reactivity when sera are sent through the mail, which may explain its relative rarity in reference laboratories and governmental public health laboratories.[15] The false reaction in collagen diseases is caused by antibody to DNA because it can be eliminated by pretreatment of the spirochetes with deoxyribonuclease, which has no effect on the reaction with sera from patients with syphilis.[16] The pattern of fluorescence does not correlate with any other laboratory test in collagen disease and may vary on repeat studies on the same specimen. Some specimens may show the homogeneous pattern that is indistinguishable from a positive syphilitic reaction.[11]

The biological false positive reaction is by definition the occurrence of positive reagin tests with negative treponemal tests. The physician should never consider a positive reagin test falsely positive unless a treponemal test on the same patient is negative, because syphilitic sera are equal or greater in incidence to biological false positive sera.[17] The treponemal test for confirmation of a positive reagin test should always be done even for subjects with conditions commonly associated with biological false positive reactions. It is our practice to have an FTA-ABS test done on every serum specimen that has a reactive VDRL without awaiting specific request for the treponemal test.

An abnormally high incidence of chronic biological false positive reactions has been noted in presumably healthy blood donors, suggesting that blood loss may stimulate the immune system to produce excess reagin.[17, 18] A high incidence of biological false positive reactions has also been noted in heroin addicts, falling from 23 percent to 5.8 percent after about 2 years of methadone treatment.[19] The reduction during methadone treatment is presumably a result of reduced exposure of the immune system to unknown antigens. The biological false positive reaction may rarely be inherited as a genetic trait in some families and inheritance should be suspected if such reactions occur in siblings and their father but not their mother.[20]

References

1. Kellogg D S: The detection of Treponema pallidum by a rapid, direct fluorescent antibody darkfield (DFATP) procedure. *Health Lab Sci* 7:34-41, 1970.

2. Wilkinson A E and Cowell L P: Immunofluorescent staining for the detection of Treponema pallidum in early syphilitic lesions. *Brit J Vener Dis* 47:252-254, 1971.

3. Duncan W C, Knox J M, and Wende R D: The FTA-ABS test in dark-field positive primary syphilis. *JAMA* 228:854-860, 1974.

4. Fiumara N J: Acquired syphilis in three patients with congenital syphilis. *N Engl J Med* 290:1119-1120, 1974.

5. Garner M F and Backhouse J L: The rapid plasma reagin (circle) card test in biological false positive and leprosy sera. *J Clin Path* 25:786-788, 1972.

6. Cohen P, Stout G, and Ende N: Serologic reactivity in consecutive patients admitted to a general hospital: a comparison of the FTA-ABS, VDRL, and automated reagin tests. *Arch Intern Med* 124:364-367, 1969.

7. Wilkinson A E, Scrimgeour G, and Rodin P: A comparison of the absorbed fluorescent treponemal antibody (FTA-ABS) test and other screening tests for treponemal disease in patients attending a venereal disease clinic. *J Clin Path* 25:437-440, 1972.

8. Goldman J N and Lantz M A: FTA-ABS and VDRL slide test reactivity in a population of nuns. *JAMA* 217:53-55, 1971.

9. Polt S S, Cassady G E, Straumfjord J V, *et al:* IgM-fluorescent treponemal antibody in the diagnosis of congenital syphilis. *N Engl JMed* 280:1086-1091, 1969.

10. Scotti A, Logan L, and Caldwell J G: Fluorescent antibody test for neonatal congenital syphilis: a progress report. *J Pediatr* 75:1129-1134, 1969.

11. Kerbaugh M: Atypical fluorescence in the FTA-ABS test. *Health Lab Sci* 9:24-26, 1972.

12. Kraus S J and Daniels K C: Atypical FTA-ABS test reaction: an initial clue in the diagnosis of lupus erythematosus. *Arch Derm* 104:260-261, 1971.

13. Kraus S J, Haserick J R, and Lantz M A: Atypical FTA-ABS test fluorescence in lupus erythematosus patients. *JAMA* 211:2140-2141, 1970.

14. Kraus S J, Haserick J R, and Lantz M A: Fluorescent treponemal antibody-absorption test reactions in lupus erythematosus: atypical beading pattern and probably false-positive reactions. *N Engl J Med* 282:1287-1290, 1970.

15. McKenna C H, Schroeter A L, Kierland R R, *et al:* The fluorescent treponemal antibody absorbed (FTA-ABS) test beading phenomenon in connective tissue diseases. *Mayo Clin Proc* 48:545-548, 1973.

16. Wright D J M: The significance of the fluorescent treponemal antibody (FTA-ABS) test in collagen disorders and leprosy. *J Clin Path* 26:968-972, 1973.

17. Garner M F: The biological false positive reaction to serological tests for syphilis. *J Clin Path* 23:31-34, 1970.

18. Garner M F, and Backhouse J L: Chronic biological false-positive reactions to serological tests for syphilis in blood donors. *J Clin Path* 23:478-480, 1970.

19. Cushman P and Sherman C: Biologic false-positive reactions in serologic tests for syphilis in narcotic addiction. *Amer J Clin Path* 61:346-351, 1974.

20. Kostant G H: Familial chronic biologic false-positive seroreactions for syphilis: report of two families, one with three generations affected. *JAMA* 219:45-48, 1972.

The Cooper Medical Center, Camden

To Honor the Bicentennial Let's Hear It for Some Old-Fashioned, True-Blue American Indignation *

The patriots who dumped tea in Boston harbor were indignant — just as indignant as those who burned The Peggy Stewart earlier. American outrage boiled over again in the XYZ affair, the depredations of the Barbary pirates, the British impressment of American seamen, the burning of the White House. We are a choleric people, outraged by injustice. Indignation is as American as Mom and apple pie.

It's good to see that the bright blue flame of indignation is still burning in the States. A couple of happenings close to home reminded us of this. One muggy summer night the Philadelphia department of streets rumbled into a historic, restored area of Philadelphia and began ripping up the Belgian blocks in the street which had been carefully laid some years before. The excuse was the Belgian blocks are hard to walk on, especially if you're a woman with stilt shoes. Since that was a patently ridiculous excuse, the department later retreated and said it was all a mistake. But the point is that the residents refused to allow this desecration. They poured into the streets in righteous anger and loudly and profanely put to flight the crews and their infernal machines. A victory for good old American indignation!

A less dramatic outpouring, but one no less satisfying, was the indignation expressed by scores of Lea and Febiger authors in letters to their congressmen and members of the House Committee dealing with copyright matters. In response to an appeal from Christian Spahr, these authors made clear to the peoples' representatives what they thought about the attempt to emasculate those sections of the proposed copyright bill dealing with photocopying and fair use. We saw some of the letters and were delighted by their trenchancy and the sense of outrage which permeated them.

Speaking up, speaking out against injustice is admirable. We'd like to hear more of it. Instead of spending the Bicentennial in pageantry and self-congratulation we hope to see Americans make an effort against some of the indignities that we've come to accept as normal.

Such things as high unemployment on the one hand and welfare cheating on the other cry for solution and public involvement. The fact that rape, murder, vandalism, and theft are so widespread in our cities as to be a world scandal is outrageous and intolerable. One could go on and on listing outrages which we've learned to live with, but you get the idea. Let's learn from the Lea and Febiger authors who wrote their congressmen about the copyright bill and write our congressmen this Bicentennial year about the outrages and injustices in our body politic. And when you do it, put a little old-fashioned American indignation in your letter.

* Reprinted from *Book News and Views from Lea and Febiger*, Philadelphia, November 1975.

Effectiveness across the spectrum of most common forms of insomnia

Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

- Awake
- REM
- Stage 1
- Stage 2
- Stage 3
- Stage 4

Awake too long

Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories![1-4]

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.

Broad-spectrum medication for the most common forms of insomnia

Awake too early

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage
(15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

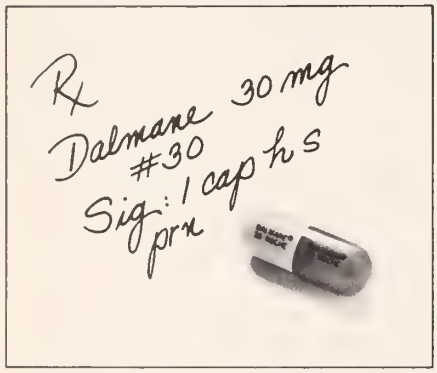
- induces sleep rapidly
- reduces nighttime awakenings
- lengthens total sleep time

ROCHE

Please see following page for a summary of complete product information.

Broad-spectrum medication for the most common forms of insomnia

Dalmane®
(flurazepam HCl) CIV



Objectively proved in the sleep research laboratory, Dalmane

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum bene effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: Th sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of th American Psychiatric Association, Washington DC, May 3-7, 1971

2. Frost JD Jr: A system for automaticall analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medi Association, Houston, Apr 26-29, 1971

3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

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Femoro-femoral grafts are indicated in patients with unilateral iliac artery occlusions. These grafts remain patent despite the fact that they cross two joints, are of synthetic material and frequently have run-off limited to the profunda femoris artery. Progression of arteriosclerotic occlusive disease in the donor ilio-femoral segment has not been a cause of graft failure when cases are selected properly. Although intended for poor-risk patients this procedure can be used in any patient with unilateral ilio-femoral occlusion because the results are as good as those obtained with more complicated conventional types of aorto-iliac and ilio-femoral reconstructions.

Crossover Femoro-Femoral Grafts*

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Newark

Unilateral atherosclerotic occlusion of either iliac artery can be treated by one of several procedures: unilateral aorto-femoral bypass, aorto-iliac endarterectomy, cross-over femoro-femoral graft, or axillo-femoral grafting.

From 1966 through 1974 we have carried out 98 cross-over femoro-femoral grafts in 92 patients and favor this technique in the management of unilateral iliac artery occlusion. This report analyzes our results with this procedure and suggests that crossover femoro-femoral grafts may be the procedure of choice of those available for the management of unilateral iliac artery occlusion.

Material and Methods

A series of 92 patients composed of 67 males and 25 females ranged in ages from 45 to 85. There were 27 diabetics, 71 smokers, of whom 17 were both smokers and diabetics. Indications for arteriography and surgery were as follows:

1. Disabling claudication of less than one block (39 patients);

2. Impending gangrene with rest pain (30 patients);

3. Frank gangrene or ischemic ulcer (32 patients);

4. Traumatic iliac artery occlusion due to cardiopulmonary bypass (1 patient).

Arteriography was performed by one of three methods:

1. Percutaneous needle puncture of the donor femoral artery with retrograde hand injection of dye;

2. Translumbar aortography;

3. Retrograde aortography with Seldinger technique.

When a suspicion of inflow arterial occlusion arose, femoral arterial pressures were recorded simultaneously with a brachial cuff pressure. If femoral artery pressures were within 10 to 15 mm Hg. of the cuff pressures, crossover grafts were performed regardless of the arteriographic picture. The technique of operation has been described previously and a variety of grafts have been employed. Dacron grafts of the woven, knitted, and knitted velour type, 8 to 10 mm in diameter, have been used. Currently we use knitted internal velour Dacron† as the prosthetic material of choice. Sixteen patients had a variety of reconstructive procedures prior to the performance of the femoro-femoral graft (Table 1). A variety of associated vascular procedures were employed in this to ensure graft patency when there was inadequate run-off (Table 2).

Results

Overall results were tabulated in Table 3 according to the life table methods described by Darling, *et al.*[3] There were three postoperative deaths as a result of acute myocardial infarction in this series. It is of interest that two of the three had immediate graft closures and required reoperation in order to establish graft patency. Causes of death are listed in Table 4.

In the group of 62 patients in whom reconstruction was performed for limb salvage (gangrene, ischemic ulcer, or severe rest pain) 43 patients had patent grafts and amputation was avoided

*Read before the Section on Surgery, 209th Annual Meeting, The Medical Society of New Jersey, June 2, 1975, Cherry Hill, New Jersey. This work is from the Department of Surgery, Newark Beth Israel Medical Center, and the New Jersey Medical School, CMDNJ, Newark.

† — U.S. Catheter and Instrument Corporation

Table 1

Attempted Reconstructions Before Crossover Femoro-Femoral Grafts

Iliac embolectomy	3
Femoral popliteal bypass	5
Femoral popliteal and sympathectomy	1
Axillo-femoral graft	1
Aorto-femoral bypass	4
Aorto-iliac endarterectomy followed by aorto femoral bypass	1
Sympathectomy and femoral endarterectomy	1

Table 2

Associated Vascular Procedures Performed with Crossover F-F Grafts

Common and profunda femoral endarterectomy	47
Sympathectomy and endarterectomy	5
Femoral popliteal bypass and endarterectomy	3
Endarterectomy, femoral popliteal bypass and sympathectomy	2
Sympathectomy	2
Aorto-coronary bypass	2

Table 3

A	*B*	*C*	*D*		*E*	*F*	*G*	*H*
Interval	*Number of grafts at risk*	*Number of grafts failing*	*Number of grafts not observed throughout period due to*		*Interval failure rate %*	*Interval patency rate %*	*Accumulative patency rate %*	*Standard error of patency rate %*
			death	*duration of*				
Under 30 days	99	10	4	0	10.3	89.7	89.7	3.1
30 days-1 year	85	5	7	0	6.1	93.9	84.2	3.8
1 year-2 years	73	3	4	6	4.4	95.6	80.5	4.2
2 years-3 years	60	3	4	3	5.3	94.7	76.2	4.6
3 years-4 years	50	3	3	7	6.7	93.3	71.3	5.2
4 years-5 years	37	0	2	1	0	100.0	71.3	5.2
5 years-9 years	34	0	2	0	0	100.0	71.3	5.2

Life Table Method

$$E = \frac{100C}{B-0/2}$$

$$F = 100-E$$

$$G = \text{Accumulated products of } F$$

$$H = G\sqrt{\frac{K\ E}{\Sigma \cdot / B-D-C}}$$

1 2

Table 4

Causes of Death

Myocardial infarction	15*
Strokes	3
Mesenteric artery thrombosis	1
Carcinoma of the lung	1
Carcinoma of the pancreas	2
Unknown	5
	27 patients

*3 Postoperative

Table 5

Results of Crossover F-F Grafts Performed for Limb Salvage

Patent Grafts — major amputations	7
minor amputations	3
Closed Grafts — major amputations	3
Patent Grafts — amputations avoided	43*
Closed Grafts — amputations necessary	6**

*2 post-op deaths
**1 post-op death

(Table 5). Of 57 patients with patent grafts, 46 are asymptomatic or have mild claudication, three have severe claudication and may require additional reconstruction, 8 have had a major amputation.

Follow-up data on living patients had been obtained by direct examination and with non-invasive laboratory methods within six months of this report. Complications of the operative procedure are tabulated in Table 6. There were

Table 6

Early Complictions Associated with Crossover F-F Grafts

1. Associated femoral popliteal bypass failed. TMA required crossover F-F graft, patent	1
2. Immediate occlusion of graft requiring thrombectomy and procedures to establish run-off	8
3. Early failure. Unable to establish run-off	6
4. Wound hematuria	1
5. Wound seroma	2
6. Phlegmasia cerulea dolens	1
7. Acute myocardial infarction	4
8. Superficial wound infection	2
9. Deep wound infection leading to secondary graft infection and hemorrhage	1
10. Acute occlusion of donor superficial femoral artery requiring endarterectomy	1
11. Unrecognized inflow occlusion leading to early graft failure	2
12. Endarterectomy and thrombectomy on the recipient side resulted in improved flow and elimination of gradient across the graft with early occlusion	4

ten early or immediate graft failures. These will be a subject of another report; however, early failures are a result of one of three problems. The first is the presence of unrecognized inflow occlusion. The second is due to inadequate run-off. This usually occurs in the setting of a superficial femoral block with a profunda stenosis with an initially inadequate profunda endarterectomy. The third group of early occlusions was due to elimination of a gradient by successful endarterectomy of the proximal femoral and distal external iliac arteries prior to performing the graft on the recipient side. There were 14 late closures, 4 to 36 months postoperatively. There have been no closures after 36 months. In one case the occlusion was due to unrecognized inflow occlusion which existed prior to performing the graft. This resulted in an occlusion 15 months after the initial procedure. All of the other occlusions occurred because of progressive involvement of run-off vessels. It was possible to successfully redo three occlusions. One patient underwent successful revisions twice for late occlusions due to run-off problems by performing more satisfactory endarterectomies of the common femoral and profunda femoris vessel.

Graft failures due to progressive run-off disease is the *bête noire* of all procedures designed to treat aorto-iliac occlusive disease and one can anticipate the same problems whether the initial procedure be aorto-femoral bypass, endarterectomy, or crossover femoro-femoral grafts.

It is of interest to note that the graft occluding at 30 months occurred in a patient who continued to smoke two packs of cigarettes a day after surgery. Patients undergoing reconstructive vascular procedures must be made to stop smoking to minimize the progression of atherosclerosis of outflow run-off vessels.

Postoperative arteriograms are now performed in all patients undergoing vascular procedures in order to recognize and deal with technical factors which may result in early graft occlusions. The most serious complication occurred in an obese diabetic female whose donor right groin wound became infected and after several months the graft artery anastomosis became exposed in the base of the wound. Hemorrhage occurred and it was necessary to perform a new crossover graft from the donor right iliac artery through a clean field. Circulation to the right leg was then restored by an extra-anatomical bypass through the right obturator foramen into the proximal popliteal artery. The graft was sutured to the proximal portion of the new crossover graft near the proximal anastomosis. This remained patent for two months when it occluded suddenly and attempts to restore circulation to the right leg were unsuccessful. Ultimately a right below-knee amputation was required. Currently, the revascularized left leg is asymptomatic and the crossover graft is functioning well.

Another patient developed a wound infection two years following the crossover femoro-femoral graft in the recipient femoral artery incision. Sinograms showed the infection involving the graft. Coagulase negative, hemolytic staphylococcus aureous was cultured. This infection was treated conservatively by a thorough debridement of the track surrounding the graft through a counter incision near the right groin and the insertion of an indwelling catheter through which topical neomycin was instilled. The infection did not involve either suture line and there was no hemorrhage, so we did not feel pressed to remove the graft; satisfactory wound healing occurred. The patient is now doing well over one year following wound healing.

Discussion

Initial efforts of crossover femoro-femoral grafts for unilateral aorto-iliac artery occlusion were reserved for the elderly, poor-risk patient.[1] It was feared that progressive disease of the donor iliac segment would eventually result in inflow occlusion of the graft or that the recipient limb would steal blood from the donor side. Our experience suggests that progressive inflow occlusion in the aorto-iliac segment of the donor limb does not occur. The increased flows demonstrable in the donor iliac arteries may actually inhibit the progression of the disease on that side. If one performs unilateral aorto-iliac endarterectomy or unilateral aorto-femoral bypass, progressive arteriosclerotic changes occur on the contralateral side. Levinson, *et al.*[10] reported 61 cases of unilateral aorto-femoral bypass and in four cases surgery was required for occlusion of the contralateral iliac artery. Inahara has performed 15 cases of unilateral iliac artery endarterectomy and in one patient contralateral iliac artery repair was necessary.[8] It is of interest in the cases we have reported that we have not documented progressive inflow occlusion as a cause of late graft occlusions.

Flow measurements, as obtained by direct study, show that there is no "steal" or significant alteration of flow in the donor limb distal to the take-off of the crossover graft. Mozersky in his report on axillary-axillary grafts has elegant flow studies which confirm the fact that a "steal" does not occur from the donor limb.[14] If, following a graft, the circulation on the donor side is impaired, progression of local disease in the superficial femoral artery or technical factors are likely to be the cause. The performance of an abdominal aorto-femoral procedure, whether it be endarterectomy or a prosthetic graft, carries a greater morbidity and mortality than does a crossover femoro-femoral graft. Mortality rates approximate 10 percent in several studies and long-term patency rates are not significantly better, varying from 70 percent to 90 percent.[3, 6, 7, 12, 13] The retroperitoneal approach to unilateral aorto-femoral bypass or endarterectomy certainly can be done with comparable mortality rates, however, the operation is more difficult, likely to be more time consuming and requires deeper anesthesia with muscular relaxation.

In our experience, crossover femoro-femoral grafts are successful with the likelihood of long-term patency. Late occlusions are rare, a finding which has been noted by other groups as well.[4, 5, 9] Early failure of either aorto-femoral or femoro-femoral grafts are most frequently due to the same cause — failure to create an adequate run-off via the profunda femoris artery with a thorough endarterectomy when there is also pre-existing superficial femoral artery occlusion. (Figures 1 and 2) Late failure in both groups of patients are likely to be due to progression of peripheral occlusive disease. Continued smoking may be a significant factor in some of these cases.

In suitable patients selected for crossover femoro-femoral grafts as a result of arteriograms, physical findings, and pressure studies, the risk status of the patient does not enter into the decision of the selection of crossover femoro-

Figure 1 — Note the long-term patency (27 months) of the F-F graft with run-off limited bilaterally to the profunda femoris artery.

Figure 2 — Note the long-term patency (22 months) with run-off limited to the profunda femoris arteries.

femoral grafts as the procedure of choice. The decision is made as a result of the indications for the operation and anatomical findings alone supported by arterial pressure studies rather than the risk status of the patient.

Certain technical factors are important. Systemic heparinization may be used to prevent distal thrombosis while the femoral vessels are clamped. Thorough common femoral and profunda femoral endarterectomy must be performed in a large percentage of cases to insure adequate run-off. In approximately 20 percent of cases, common femoral and profunda femoral endarterectomies were necessary on the donor side to insure distal flow to the donor limb despite good inflow from the iliac system. Postoperative arteriograms and prompt study of patients who developed symptoms with patent grafts enables correction of technical or anatomical factors which can lead to graft occlusion. The results obtained in this series, combined with the experience and observations of Vetto[15] and Mannick,[11] show that a crossover femoro-femoral graft is a safe procedure with good long-term patency rates.

References

1. Alpert J, Brief DK, and Parsonnet V: Vascular restoration for aorto-iliac occlusion — An alternative approach to the poor-risk patient. *J Newark Beth Israel Hosp* 18:4, 1967.

2. Darling RC and Linton RR: Durability of femoro-popliteal reconstruction. Endarterectomy versus vein bypass grafts. *Ann Surg* 123:472-480, 1972.

3. Darling RC and Linton RR: Aorto-ilio-femoral endarterectomy for obliterative atherosclerosis. *Surgery* 55:184, 1964.

4. Davis RC, O'Hara ET, Mannick JA, Vollman RW, and Nabseth DC: Broadened indications for femoro-femoral grafts. *Surgery* 72:990-994, 1972.

5. Foley WJ, Dow RW, and Try WJ: Crossover femoro-femoral bypass grafts. *Arch Surg* 99:83-86, 1969.

6. Gaspar MR and Morris HJ: Aorto-iliac thrombo-endarterectomy, technique and results. *Am J Surg* 111:457-462, 1966.

7. Healey SJ, Wheeler HB, Crane C, and Warren R: Reconstructive operations for aorto-iliac obliterative disease. *N Engl J Med* 271:1386-1391, 1964.

8. Inahara — (Personal communication) June 1973

9. Jepson RP, Harris JD, and Miller J: Femoro-femoral crossover grafts. *Australian and New Zealand J Surg* 39:345-348, 1970.

10. Levinson SA, *et al:* Limited indications for unilateral aorto-femoral or ilio-femoral vascular grafts. *Arch Surg* 107:791-796, 1973.

11. Mannick JA: Are there practical alternatives to aorto-iliac reconstruction? *Am J Surg* 122:344-346, 1971.

12. Minken SL, *et al:* Aorto-iliac reconstruction for atherosclerotic occlusive disease. *Surg Gynec and Obstet* 1056-1060, 1968.

13. Mozersky DJ, Sumner DS, and Strandness ED: Long-term results of reconstructive aorto iliac surgery. *Am J Surg* 123:503-510, 1972.

14. Mozersky DJ, *et al:* The hemodynamics of axillary-axillary bypass. *Surg Gynec and Obstet* 135:925-929, 1972.

15. Vetto RM: The femoro-femoral shunt. An appraisal. *Am J Surg* 112:162-165 (Aug) 1966.

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the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

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The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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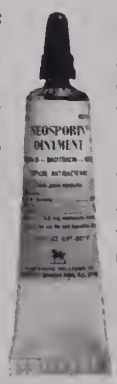

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Non-invasive tests in the vascular laboratory seek to answer three questions: (1) Does the patient have significant vascular disease? (2) How severe is the disease? (3) Where is the occlusive process located? Thus, non-invasive tests are useful for screening, for providing a pre-operative baseline, for intraoperative monitoring, and for evaluating the efficacy of a therapeutic modality, be it medical or surgical. Measurements of intra-arterial femoral pressure, segmental plethysmography and segmental limb pressures are clinically useful and easily obtained and add significantly to the decision-making process in vascular surgery.

Non-Invasive Techniques in the Evaluation of Lower Limb Ischemia*

Bruce J. Brener, M.D., Joseph Alpert, M.D., Donald K. Brief, M.D., and Victor Parsonnet, M.D./Newark

Evaluation of patients with peripheral vascular disease can often be carried out by integrating information from the history, physical examination, and arteriogram. By this means an experienced physician may be able to identify the presence, location, and severity of occlusive lesions. Occasionally, however, one wishes a more objective means of quantitating the degree of ischemia present or the hemodynamic significance of a stenotic lesion. Symptoms may not fit neatly into a single diagnostic category and changes related to treatment may not be readily apparent. For example, many patients have combined aorto-iliac and femoro-popliteal disease. Which of these segments is critically involved? Will repairing the proximal deficit improve the patient? Similarly, diabetic patients often have painful, numb feet in association with a superficial femoral artery occlusion. Are these symptoms related to ischemia or peculiar to diabetic neuropathy? Can these symptoms be relieved by femoro-popliteal bypass surgery? Finally, patients may report lessening of symptoms with the passage of time, following the administration of medication and after surgery. Is there objective evidence that improvement has taken place?

Non-invasive and minimally invasive techniques are now available which allow easy identification and quantitation of arterial insufficiency. The equipment necessary for these determinations is relatively inexpensive, can be employed by paramedical personnel and provides a permanent record of the patient's condition. This paper describes our experience with some of these tests during the last two years at the Newark Beth Israel Medical Center. Approximately 200 patients have been examined during this time. We will review our examination procedure illustrating the relevance of these tests for the practicing physician.

Physiological Measurements

Ideally, one would like to measure blood flow, either of the limb as a whole or at various segments in the limb. No direct means of measuring arterial flow is currently available without surgically exposing the vessel. Perhaps the best non-invasive means of evaluating flow are venous occlusion plethysmography[1] and xenon 133 muscle clearance.[2] However, these tests are quite cumbersome and the former is not well adapted to post-exercise testing. Furthermore, resting limb blood flow may be normal despite rather severe vascular disease.

In contrast, blood pressure is an easily obtained and familiar measurement. Intra-arterial pressure can be determined by means of an indwelling cannula and pressure transducer. This

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test requires special equipment and is reserved for inpatient evaluation. The systolic femoral artery pressure can be recorded at the time of arteriography. Normally, the femoral artery pressure should be equal to or slightly greater than the intra-aortic or brachial artery cuff pressure. If the femoral systolic pressure is lower than the aortic systolic pressure by more than 10 percent, a stenosis in the iliac system is present.[3] This test is particularly useful when the arteriogram or physical findings are equivocal, when the patient may be a poor risk for abdominal surgery, when a crossover femoral graft is contemplated, or when ischemia due to a femoro-popliteal occlusion is so severe that a "prophylactic" aortic procedure is undesirable. We have found that many "suspicious" aorto-iliac lesions are not hemodynamically significant. Conversely many "innocent" lesions are quite important. To increase the sensitivity of the test, flow can be increased through the artery in question by vasodilators, exercise, or reactive hyperemia. With increase in flow, the pressure difference is enchanced, confirming the significance of the lesion.

Indirect means for determining segmental limb pressure are available. The Doppler velocity detector has been used extensively for this purpose.[4] This unit generates a beam of ultrasound which penetrates the tissue and is reflected by the moving pulse wave in the underlying artery. The reflected sound differs in frequency from the transmitted sound and this difference is detected. The higher the velocity, the greater is the frequency shift. Motion or velocity can be noted in a vessel even if no pulse can be felt.

The velocity trace itself may be heard or recorded and its amplitude and shape evaluated. However, the trace is subject to minute changes in the position of the Doppler probe. The Doppler device may be used more reliably as a sensor in conjunction with a blood pressure cuff to determine limb pressures at the thigh, calf and ankle. (Figure 1). The probe is positioned over the dorsalis pedis, posterior tibial, or peroneal artery. The cuff is inflated to suprasystolic levels, causing the velocity signal in the foot to disappear. The cuff is deflated; at the point at which the signal returns, the systolic pressure of that limb segment is determined. If the cuff is at the thigh, the "thigh pressure" is noted. If it is at the calf, the "calf pressure" is recorded. It is important to monitor the vessel at the foot with the highest velocity (loudest noise), since proximal tibial occlusive disease may affect the calf and ankle pressure recorded. The highest pressure is the clinically important measurement. (Figure 2).

Normally, there is a slight amplification of the arterial systolic pressure as blood transverses the limb. The ankle blood pressure should be equal to or slightly greater than the brachial cuff pressure. This comparison is best expressed as a ratio, the ankle systolic "index," which is the ankle systolic pressure divided by the brachial systolic.[6] If the ankle systolic index is less than 0.9, then a significant lesion is present in the blood supply to the limb. The pressure loss is, of course, related to the degree of narrowing of the lumen, the length of the diseased area, and the adequacy of the collateral circulation. The collateral vessels, despite their number and size by arteriography, provide resistance to flow. Although limb blood *flows* at rest may be nor-

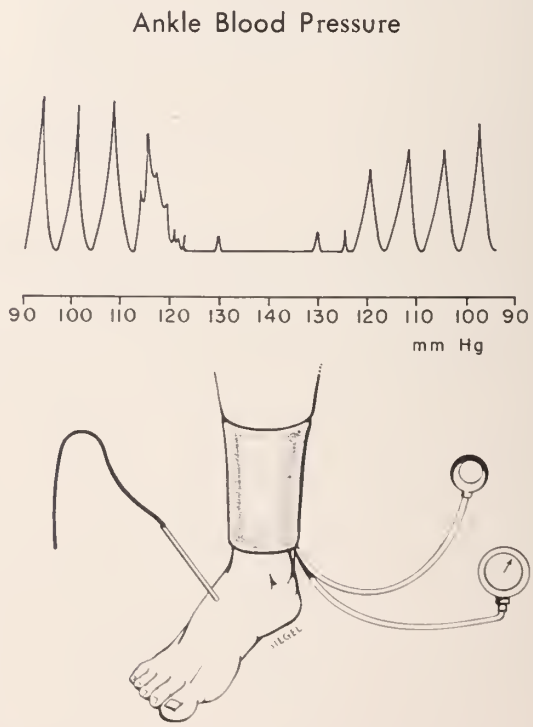
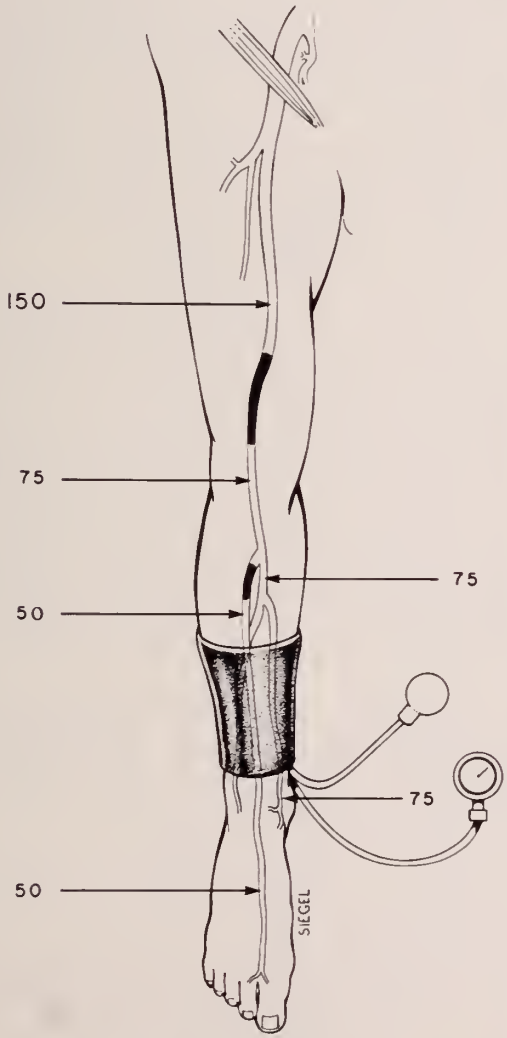


Figure 1 — The Doppler probe is positioned over the tibial vessel with the "highest" velocity. A standard blood pressure cuff is inflated at the ankle. The Doppler signal is obliterated and returns during deflation. The "ankle blood pressure" is the highest pressure which allows the signal to be heard.

mal, there is usually a significant *pressure* difference between the parent vessel and re-entry vessel beyond a total occlusion. On the other hand, a stenosis which on arteriography appears quite narrow, may be associated with minimal pressure losses.

Although the Doppler instrument is useful, it has several limitations. First, the probe must be accurately placed over the vessel. Second, the three tibial vessels may be occluded at the ankle, so that no pressure determination can be made.



Ankle Blood Pressure

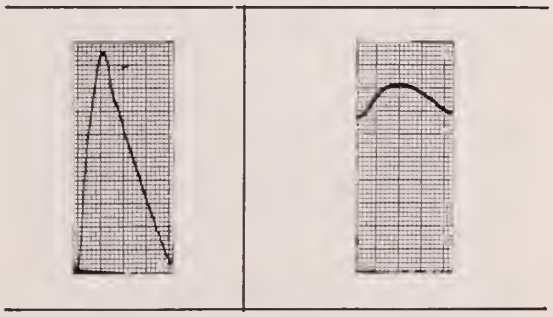
Figure 2 — This illustrates the importance of monitoring the tibial vessel with the highest velocity, i.e., loudest noise. Here, the proximal anterior tibial artery is occluded, reducing the distal anterior tibial pressure. However, the "ankle pressure" should reflect the pressure in the patent posterior tibial and peroneal arteries.

Third, in our experience, the tibial vessels cannot be occluded by the cuff in approximately 10 percent of patients. This is particularly true of a calcified anterior tibial or peroneal artery in a thin-legged, older individual.

For these reasons, it is helpful to have another indirect non-invasive means of evaluating the peripheral circulation. Segmental plethysmography is a well-known technique which detects changes in limb volume with each cardiac cycle. The pulse volume curve obtained faithfully reflects intra-arterial pressure changes in most cases. A new pneumatic segmental plethysmograph, the "pulse volume recorder," which is sensitive and yet screens out irrelevant signals,[5] is available. A blood pressure cuff is applied sequentially at the thigh, calf and ankle. The cuff is inflated with 75 ml of air to achieve a pressure of 65 mm Hg, and the pulse volume traces are recorded. Since the cuff can be reapplied in exactly the same fashion, these traces can be repeated in a standardized, highly reproducible manner. The amplitude and the character of the pulse wave are then analyzed. (Figure 3).

To increase the sensitivity of these two tests, segmental limb pressures and plethysmography, post-exercise examinations can be carried out. At resting levels of blood flow, stenotic lesions, particularly in the aorto-iliac segments, may be associated with minimal pressure gradients or pulse volume deficits. However, following exer-

Calf PVR at Rest



Normal Abnormal

Figure 3 — This demonstrates a normal and abnormal pulse volume trace at the calf in a resting subject. Normally, there is a sharp upstroke and down stroke and a reflected diastolic wave. In the abnormal trace, there is a diminution in amplitude and a flattening of the curve, with no reflected wave. (Pulse Volume Recording).

cise, blood flow through the stenotic lesions or through collateral vessels increases. This results in a greater pressure loss or pulse volume decrease in the arteries distal to the lesions. A standard test has been developed to evaluate this.[4] Patients walk on a graded treadmill at two miles per hour. The patient's symptoms are recorded as well as the time until claudication prevents further ambulation. This time is called the "maximum walking time." If no symptoms develop, the test is ended at five minutes. Segmental pressures and pulse volume curves are determined prior to exercise. Ankle blood pressure and pulse volume traces are noted following the cessation of exercise. The magnitude of the drop in pressures and traces and the length of time to recovery correlates with the degree of ischemia and the adequacy of the collateral circulation. Normally, the pressure and pulse volume amplitude increase following exercise. Any fall in these parameters verifies the presence of significant stenotic or occlusive disease. This may occur despite the presence of excellent peripheral pulses at rest.

Results

Our standard evaluation in the vascular laboratory or office follows a careful interview and examination. Segmental limb pressures are determined and pulse volume traces are obtained at rest at the thigh, calf and ankle. The patient then walks on a treadmill, if feasible, for up to five minutes. The maximum walking time is obtained. Immediately following this exercise, the ankle blood pressure and pulse volume traces are recorded. Femoral artery pressures are measured during arteriography to clarify the hemodynamic significance of aorto-iliac lesions.

Yao[6] found an excellent correlation between ankle systolic index at rest and the degree of ischemia of the lower extremity. Our experience confirms his findings. Most patients with intermittent claudication have an ankle systolic index at rest between 0.5 and 0.8. When the index is below 0.3, ischemia rest pain, ulceration, or gangrene is usually present. We have seen several patients with symptoms suggestive of proximal claudication whose vascular laboratory examinations were completely normal. These patients often have minimal aorto-iliac atherosclerosis and the symptoms can be related to orthopedic disease of the lumbar spine or hips. Similarly, we have examined many diabetic patients with typical burning pain and paresthesias in the feet in association with a superficial femoral artery occlusion. Often these patients do not exercise enough to claudicate. When the ankle systolic index is above 0.5, one can be relatively confident that their "rest pain" is due more to "diabetic neuropathy" than to severe ischemia. Femoro-popliteal bypass will usually not relieve these symptoms.

Unfortunately, the ankle systolic index alone cannot predict the site of the occlusive lesion. The ankle pressure associated with simple iliac artery stenosis is often not significantly different from the pressure associated with superficial femoral artery occlusion. Likewise, the severely reduced ankle pressure resulting from combined femoro-popliteal and tibial disease may be similar to that resulting from aorto-iliac and superficial femoral occlusions.

Information can be obtained frequently by comparing a segment of one limb with that of another. For example, in a patient with a unilateral iliac occlusion, the thigh pressure on the symptomatic side will be lower than that on the asymptomatic side. If the latter pressure is equal to brachial pressure, then the disease may be truly unilateral. Likewise, a segmental pressure may be compared to a limb segment above and below it. For example, if the calf pressure is 20 percent lower than the thigh pressure, then a femoro-popliteal occlusion or stenosis is present.

If the superficial femoral artery is occluded to its origin, the thigh pressure will be significantly less than the aortic pressure. Under these circumstances, the thigh pressure does not reflect the hemodynamic significance of an iliac stenosis. If a patient is suspected of having significant aorto-iliac disease in the face of a femoro-popliteal occlusion, this can be confirmed only by direct intra-arterial common femoral artery pressure. This simple measurement, while it does require special equipment, has proved invaluable in assessing the importance of the aorto-iliac segment.

These non-invasive tests have been helpful in pre-operative evaluation, intraoperative and postoperative monitoring, and office follow-up.

They provide an objective baseline against which to measure future changes. The clinical usefulness of the vascular laboratory examination will be illustrated by eight brief case reports.

Case Reports

Aorto-iliac Occlusive Disease: A 65-year-old retired corporate president complained of pain in the right buttock with radiation down to the knee and calf with exercise. Roentgenogram of the back and hips showed moderate degenerative joint disease. Examination revealed a slightly reduced femoral pulse on the right with a soft bruit; popliteal pulses were present on both sides, and pedal pulses were noted on the left only.

To differentiate symptoms of aorto-iliac occlusive disease from those of degenerative hip disease, vascular laboratory examination was carried out. As seen in Figure 4, studies showed decreased amplitude and abnormalities in contour of the pulse volume traces at the right thigh, calf, and ankle. Exercise on the treadmill at two miles per hour and 10 percent grade reproduced his symptoms. Maximum walking time was two minutes, twenty seconds. Following cessation of walking, the pulse volume traces became grossly abnormal and the ankle pressures fell. These changes were more prominent on the right. The non-invasive tests thus confirmed the presence of significant occlusive disease. Because his symptoms only mildly interfered with his duck hunting, he elected to begin an exercise program, lose weight, and stop smoking.

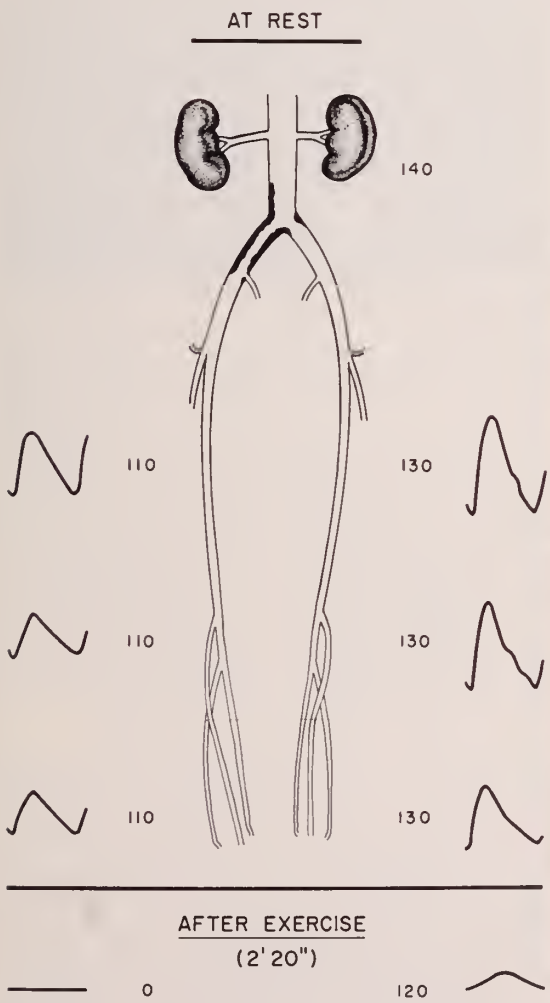


Figure 4 — This 65-year-old man had right thigh and calf claudication. The pulse volume recordings and segmental limb pressures reflect the degree of aorto-iliac occlusive disease. Note that following exercise, there is a loss of pressure and pulse volume at the ankles.

Unilateral Iliac Occlusive Disease: A 72-year-old man was admitted with numbness and pain in the left foot. Examination showed a normal right femoral and a weak left femoral pulse. Arteriography revealed atherosclerotic plaquing in the aorta and both common iliac arteries. There was a significant stenosis in the left external iliac artery. The right femoral artery pressure was equal to aortic pressure whereas the left femoral pressure was 80 mm Hg lower (Figure 5). In this relatively poor-risk patient, a crossover femoro-femoral graft was carried out with marked improvement on the left. There was no change in the circulation in the right (donor) limb. Measuring intra-arterial pressures ensured that the donor circulation was adequate and that a true pressure difference was present. Without this assessment, crossover grafting may be unsuccessful.

Figure 5 — This 72-year-old man, with moderate cardiac disability, underwent femoro-femoral crossover grafting when his intra-arterial femoral systolic pressures confirmed the presence of a severe left iliac stenosis. Despite atheromatous disease on the donor side, there was no pressure gradient.

Femoro-popliteal Occlusive Disease: A 63-year-old housewife complained of intermittent claudication of the right calf and rest pain in the right foot. Neither popliteal nor pedal pulses were felt; the foot was cool with shiny skin which became red with dependency. Femoro-popliteal and tibial occlusive diseases were demonstrated by arteriography. Pre and post-operative studies were performed in the vascular laboratory, (Figure 6). Successful femoral-popliteal grafting restored the hemodynamic response to normal.

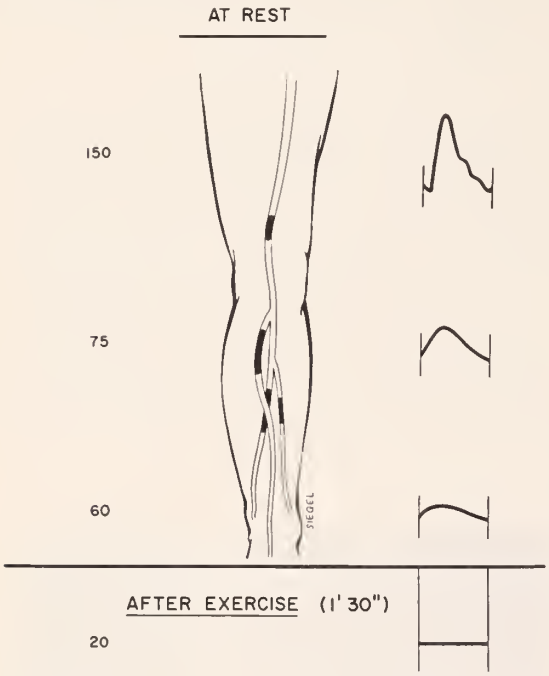
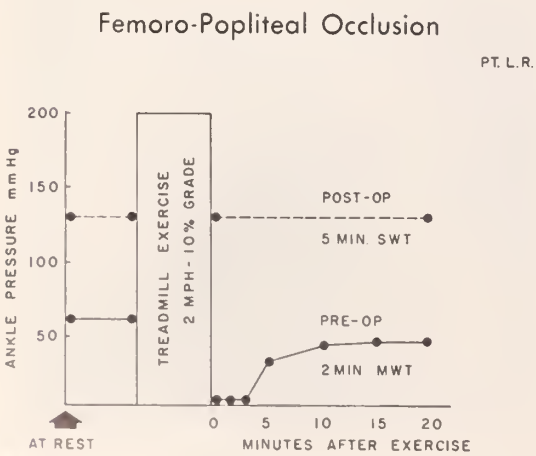
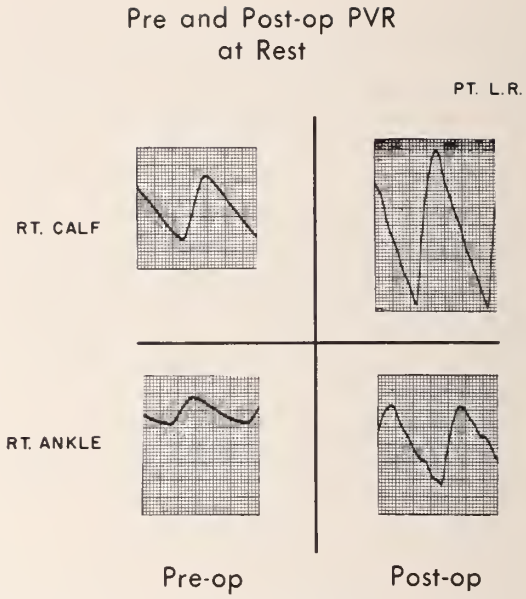


Figure 6 — (a) — Vascular laboratory examination in this 63-year-old housewife confirmed the diagnosis of femoro-popliteal and tibial occlusive disease with severe ischemia.



(b) The pre-operative response of the ankle blood pressure to exercise is shown: The pressure fell from its low resting level and gradually returned over several minutes. In this case note that the hemodynamic response was normal following bypass surgery



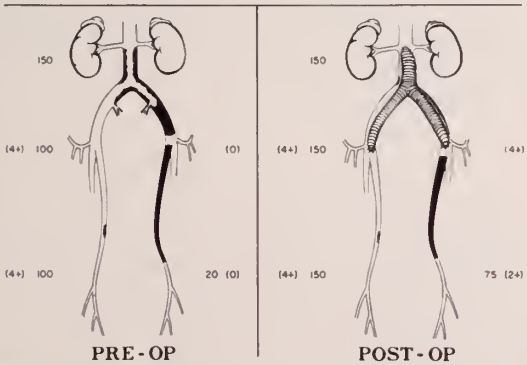
(c) The pre and post-operative pulse volume recordings.

Combined Aorto-femoral and Femoro-popliteal Disease: A 60-year-old mechanic complained of claudication of the left calf and pain in the left foot, (Figure 7). On examination the right femoral pulse felt normal but a bruit was heard over it. The right popliteal and pedal pulses were present. No pulses were palpable on the left. Vascular laboratory examination showed a pressure difference between the aorta (brachial pressure) and the right thigh, suggesting the presence of right iliac stenosis. There was no difference from the thigh to the calf; therefore, the stenosis in the right distal superficial femoral artery was not significant at rest. Studies on the left were consistent with a combined iliac and femoral occlusion. Arteriography confirmed this. There was a suggestion of a plaque at the bifurcation of the right iliac artery and a stenosis of the right superficial femoral artery. Femoral artery pressure measurements confirmed the hemodynamic importance of the iliac stenosis by demonstration of a 50 mm Hg pressure difference from the aorta to the femoral artery. After aorto-femoral grafting, the hemodynamics on the right were restored to normal at rest. The ischemic symptoms on the left were relieved; laboratory findings consistent with a left superficial femoral artery occlusion persisted.

Several important points should be stressed from reviewing this case. First, the physical examination and arteriogram were misleading and tended to minimize the importance of the right iliac stenosis. Second, a crossover femoro-femoral graft would have been unsuccessful or would have made the right (donor) side worse by increasing the pressure difference from the aorta to the right femoral artery. Third, the significance of the right superficial femoral artery stenosis was correctly judged to be insignificant, since repairing the right iliac lesion restored the calf pressure to normal. Fourth, it was not necessary to restore the circulation of the left limb to normal, since the collateral circulation around this left superficial femoral artery block was adequate to relieve the major symptom of rest pain. It is well known that revascularization of the profunda femoris will often provide excellent circulation to the lower limbs.

Figure 7 — (a) — Arteriogram revealed a left iliac occlusion, left superficial femoral occlusion and right superficial femoral stenosis. There is a suggestion of a stenosis at the right iliac bifurcation (arrow). The systolic pressure in the right common femoral artery was 50 mm Hg lower than aortic pressure.

COMBINED AORTO-ILIAC & FEMORO-POPLITEAL OCCLUSIVE DISEASE



(b) — The pre-operative vascular laboratory studies pointed to bilateral disease. The right thigh pressure (100) could have reflected either a proximal femoral or iliac stenosis. The post-operative study confirmed the significance of the right iliac lesion and demonstrated marked bilateral improvement.

Acute Popliteal Artery Occlusion: A 71-year-old former operating room supervisor complained of a cool, numb, right foot and severe claudication. On examination, she had hypertension, bilateral carotid bruits, and a strong right femoral pulse; no popliteal pulse was felt. The foot was cool, but viable. Arteriography revealed bilateral internal carotid stenosis, reducing the diameter by 40 to 50 percent, and a right popliteal occlusion with reconstitution of a large anterior tibial artery. The patient was treated with anticoagulant medication, improved over the next week, and was discharged.

During the follow-up period, pain and claudication disappeared; examination in the office revealed that the anterior tibial pulse had returned via collateral pathways (Figure 8). Clinical improvement was paralleled by a rise in the ankle systolic index from 0.33 to 0.70 over a three month period. Laboratory examination objectively confirmed the clinical findings. Although anterior tibial bypass grafting was possible, it was felt that the risks in this patient were prohibitive. The functional end result was satisfactory.

Acute Popliteal Occlusion

DATE	ANKLE SYSTOLIC INDEX	SYMPTOMS
10/23/73	0 33	REST PAIN
11/15/73	0.40	CLAUDICATION 50'
12/10/73	0 58	CLAUDICATION-300'
1/12/74	0 70	NO SYMPTOMS (+ DP)

Figure 8 — This 71-year-old nurse improved following an acute popliteal artery occlusion. The ankle systolic index paralleled the clinical symptoms.

Postoperative Monitoring: A 56-year-old foreman developed severe ischemia of the left foot with marked claudication. Examination failed to reveal pulses below the femoral and the foot appeared to be in jeopardy. Arteriography revealed femoro-popliteal occlusion with reconstitution of the peroneal artery. A reversed saphenous vein graft was inserted from the common femoral artery to the mid-peroneal artery after removing a portion of the fibula. Following surgery there was moderate edema of the leg; the popliteal pulse was difficult to feel and, of course, no pedal pulses could be detected. Pulse volume traces and segmental limb pressures confirmed continued patency of the graft (Figure 9). These instruments were used in the operating room, in the recovery room, and at the patient's bedside to evaluate the immediate results of surgery.

Figures 9 — The pre and postoperative arteriograms in a patient with an extensive femoro-popliteal occlusion. Femoro-peroneal bypass grafting salvaged the leg. Popliteal and pedal pulses were not felt in the immediate post-operative course, but patency was confirmed by non-invasive means.

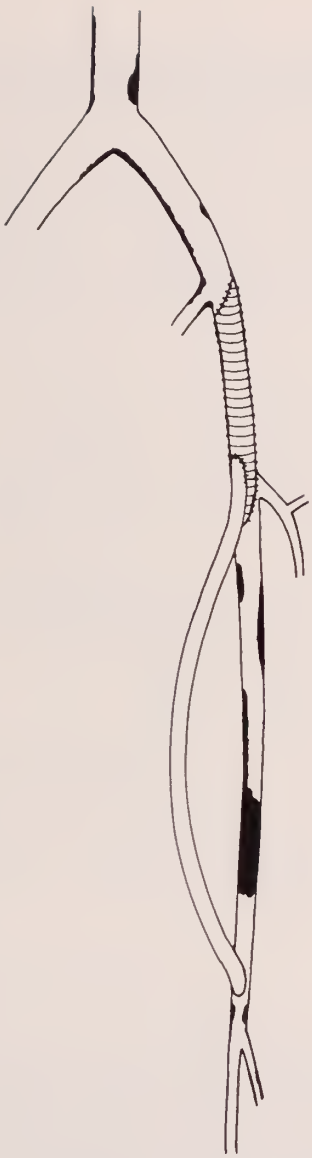
Office Follow-up: A 63-year-old superintendent was admitted with incapacitating claudication, rest pain, and ulceration of the right great toe. Examination revealed "reduced" femoral pulses bilaterally with bruits. Neither popliteal nor pedal pulses were felt. The right foot was markedly ischemic. Electrocardiogram revealed a recent myocardial infarction. Arteriography demonstrated moderately severe aorto-iliac disease, superficial femoral artery occlusions and tibial disease. Femoral artery pressures were equal to aortic pressure, suggesting that the stenotic lesions had not reached critical levels. A composite dacron-saphenous vein femoro-popliteal bypass graft was inserted in the right leg, resulting in disappearance of pain and healing of the ulcer. The right thigh pressure was equal to brachial pressure.

Six weeks following surgery a louder bruit was noted in the groin and the femoral pulse felt weaker. The thigh pressure was now 50 mm Hg lower than aortic pressure. The patient was re-admitted. Arteriography revealed progression of the stenotic disease of the external iliac artery and patency of the femoro-popliteal bypass. An aorto-femoral graft was inserted, returning the thigh pressure to normal.

This patient illustrates the difficult decisions faced in patients with advanced, diffuse atherosclerotic disease. Although he had rather marked aorto-iliac disease, femoral pressure measurements predicted that aorto-femoral reconstruction would not have helped him. Furthermore, the recent myocardial infarction prevented consideration of prophylactic aortic grafting. Unfortunately, the lesions in the external iliac artery progressed, requiring ultimately the proximal procedure. Non-invasive studies in the office alerted us to the progression of the disease and prevented loss of the femoro-popliteal graft.

Combined Aorto-iliac and Femoro-popliteal Disease: A 72-year-old man complained of rest pain in the left foot. Examination revealed a non-healing ulcer, weak femoral pulses and audible bruits. X-ray of the limbs showed that the arteries were extensively calcified. Arteriography (Figure 10) revealed diffuse aorto-iliac disease and bilateral femoro-popliteal occlusions. On clinical grounds, repairing the inflow would have been the usual procedure. However, pre and intra-operative pressures in the common femoral and profunda femoral arteries were equal to aortic pressure. An external iliac to femoral graft was inserted and combined with a femoro-popliteal bypass. The former alone would not have increased flow, but was technically necessary for femoro-popliteal grafting. Measurement of pressures identified the *hemodynamically* important lesion.

Figure 10 — (a) — Arteriography reveals diffuse aorto-iliac disease. However, the lesions were not critically stenotic by femoral pressure testing.



(b) — An ilio-femoral and femoro-popliteal graft was successful in allowing the ischemic ulcer to heal.

Comment

The use of the non-invasive and minimally invasive physiological studies have provided a means for objective evaluation of lower limb ischemia. These tests have become as much a part of our pre and post-operative routine as arteriography. They are not intended to replace the morphologic study of the vascular system, but are used to add another dimension to the decision-making process.

These tests provide a baseline for further comparison. They are useful in differentiating vascular insufficiency from orthopedic and neurological disorders. They can quantitate the severity of ischemia, can help localize the occlusive process, and can evaluate the hemodynamic significance of stenotic lesions.

Intra-operative and post-operative monitoring is facilitated by non-invasive techniques. The post-operative appearance of the ischemic limb can be deceptive. Peripheral vasoconstriction and edema may lead one to erroneously conclude that the reconstruction has been unsuccessful. Likewise, the warmth generated by concomitant sympathectomy may mask an occlusion. Pulses may be difficult to feel in the initial post-operative course, especially to nursing personnel and resident physicians. Comparisons between pre and postoperative studies may help resolve these questions.

Finally, office follow-up and out-patient screening are facilitated by objective data. The results of non-surgical therapy such as vasodilating

drugs may also be evaluated; furthermore, the studies help us to predict closure of grafts before they occur and improvement during conservative treatment.

These studies, however, are not a substitute for thoughtful, careful clinical evaluation by an experienced observer. They rarely contradict the decisions of the clinician; however, with increasing use one begins to put the tests into proper perspective. As shown by the cases described, the tests find their place in the care of vascular patients, alongside the traditional means of evaluation — history, physical examination, and arteriography.

References

1. Hillestad LK: The peripheral blood flow in intermittent claudication. V. Plethysmographic studies. The significance of calf flow at rest and in response to timed arrest of the circulation. *Acta Med Scandinav* 174:23-41, 1963.

2. Lassen NA, Lindbjerg IF, Dahn I: Validity of the xenon 133 method for measurement of muscle blood flow evaluated by simultaneous venous occlusion plethysmography: observation in the calf of normal man and in patients with occlusive vascular disease. *Circ Res* 16:287-293, 1965.

3. Brener BJ, Raines JK, Darling RC, Austen WG: Measurement of systolic femoral artery pressure during reactive hyperemia: an estimate of aorto-iliac disease. *Circulation* 50 (Suppl 11):259-266, 1974.

4. Sumner DS, Strandness DE Jr: The relationship between blood flow and ankle blood pressure in patients with intermittent claudication. *Surgery* 65:763, 1969.

5. Darling RC, Raines JK, Brener BJ, Austen WG: Quantitative segmental pulse volume recorder: a clinical tool. *Surgery* 72: 873-887, 1972.

6. Yao ST: New techniques in objective arterial evaluation. *Arch Surg* 106:600-604, 1973.

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Federal HMO Program Dollars for New Jersey

Reports from Region II, U.S. Department of HEW, which includes New York, New Jersey, Puerto Rico, and the Virgin Islands, indicate that New Jersey is getting a respectable share of Federal HMO Program dollars. The specific grants to date were as follows:

This does not include six-figure dollar grants to other prepaid group medical plans (such as Mercer Regional Medical Plan, Trenton and the Vineland Family Health Center). The latter money came from HEW programs other than the Federal HMO Program.

HMO	*Type of Grant*	*Amount in Dollars*
Co-Med, Inc., Tri-County Office Morristown	Feasibility	50,000
Group Health Plan of N.J. Guttenberg	Feasibility Planning	50,000 125,000
Central Essex HMO	Planning Initial development	93,000 701,465
Health Care Plan of N.J., Inc. Moorestown	Planning Initial development	125,000 600,197
Rutgers Community Health Plan New Brunswick	Planning Initial development	125,000 947,418
South Shore Health Plan Atlantic City	Initial development	238,352

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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WRITE FOR LITERATURE AND SAMPLES

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CASE REPORT

In this case of wide-spread malignant melanoma, the tumor histologically revealed a remarkable amount of melanin pigment, as well as amyloid deposits in some areas. In contrast to other types of malignancies with amyloid deposits in which amyloidosis is of a secondary type occurring in viscera beyond the confines of tumor tissue, the amyloid was confined to the tumor. Thus it was similar to that which occurs in medullary carcinoma of the thyroid gland.

Amyloid Producing Malignant Melanoma

Ezatollah Foroughi, M.D./Ocean

Amyloid, a glossy substance within the tissue framework, has long attracted the attention of investigators. Amyloid deposition alone or in association with different disease processes, including malignancies, has been described.[1] However, such association with malignant melanoma has not been observed.

The purpose of this paper is to report a case with widespread malignant melanoma and amyloid deposits in the stroma of the malignant tissue.

Case Report

A 52-year-old Caucasian male, with a known wide-spread malignant melanoma of unknown origin and duration, was admitted to the hospital. He had a short course and expired.

Major Autopsy Findings — The body was well developed; the face was edematous. There was an area of ulceration on the right trochanter measuring approximately five cm. in diameter. There was melanotic tumor involvement of the axillary, right jugular, mediastinal, and mesenteric lymph nodes. The tumor extended to involve and obstruct the superior vena cava. The pericardial sac contained 100 ml. of brownish fluid and the pericardial layers were studded with numerous millet-size metastatic nodules. Scattered through the lungs were neoplastic nodules of several centimeters in size. There was a non-ulcerated neoplastic mass measuring 10 cm. in diameter on the greater curvature of the stomach and another mass of similar size, with central cavitation, which perforated into the duodenal lumen. Two separate neoplastic areas in the transverse colon were present: one was ulcerated and measured 15 cm.; the other was non-ulcerated and measured 10 cm.

There were a few metastatic nodules, up to 1.5 cm. in size, in both kidneys. Metastatic nodules of approximately 0.5 cm. in size were noted in the right adrenal, periadrenal tissue, and diaphragm. The thyroid gland was normal. The histologic appearance, confirmed on special stain, was that of a moderately pigmented malignant melanoma with many bizarre cells. (Figure 1)

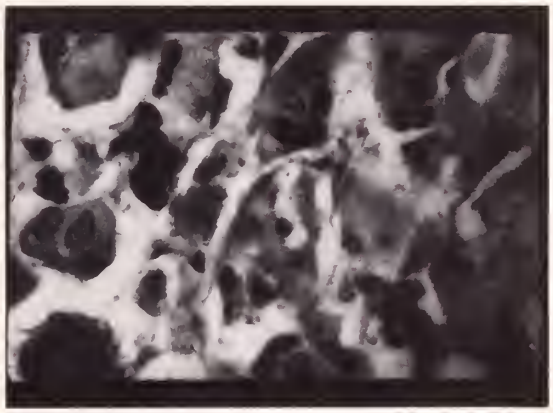

Figure 1 — Section reveals bizarre, pleomorphic cells of malignant melanoma with coarsely granular brown melanine pigment.

The neoplastic tissue revealed areas with an eosinophilic, glossy, homogeneous substance, with the appearance of amyloid. This was confirmed by a Congo-red stain and by birefringence. (Figures 2, 3) The amyloid deposition generally seemed unrelated to vasculature, and only occasional vessels with mural hyalinization in the tumor were noted. (Figure 4) No amyloid was found in organs or tissue not involved with the neoplasm and no definite primary site for the malignant melanoma was found. The sections from the trochanter ulceration failed to reveal any neoplasm, while the central nervous system and ocular globes were excluded from pathological examination.

Comment

Amyloid was first recognized by Rokitansky in 1842 and later named by Virchow.[1,2] Other designations such as "tissue proteinosis" and gammaloidosis were given to this substance.[3-6] The structure, composition and tinctorial qualities of amyloid have been extensively studied.[1,7-12] Several classifications of

*From the Department of Pathology, Jersey Shore Medical Center-Fitkin Hospital, Neptune, New Jersey

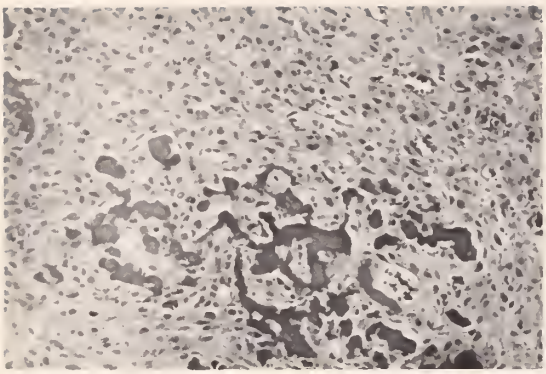

Figure 2 — Section reveals neoplastic cells of malignant melanoma with scattered irregular sheets of glassy eosinophilic intratumoral amyloid deposit which is not contingent with any vascular channel.

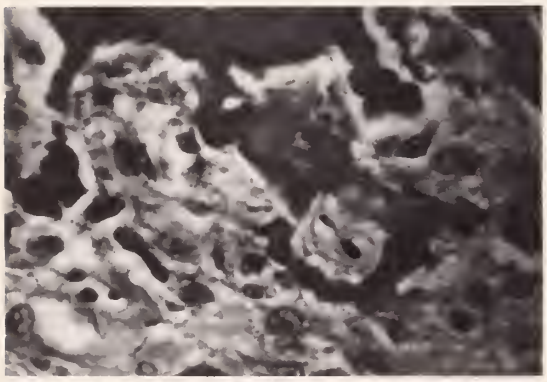

Figure 3 — Higher magnification of the same eosinophilic homogeneous substance.

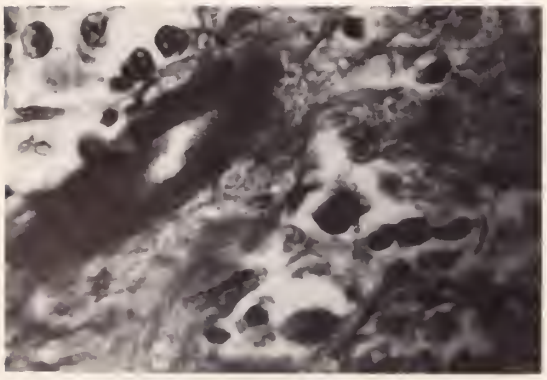

Figure 4 — Section from malignant melanoma with a vascular channel revealing mural eosinophilic homogenous glassy amyloid deposit.

amyloidosis have been proposed and that of Briggs includes newly recognized forms. [1,7,13 17]

The presence of amyloidosis, in association with certain neoplastic diseases, has long been known. The amyloid deposition in the presence of neoplasm is usually of the secondary variety.[18] Kimball's review of 4033 autopsies of patients with malignant disease from Memorial Center in an 11-year period revealed 16 cases of amyloidosis with malignant neoplasms alone, an incidence of 0.4 percent.[19] His report contained seven patients with Hodgkin's disease, two cases of multiple myeloma, one lymphosarcoma, and one each of rectal, bronchogenic, uterine cervical, esophageal, renal, and submaxillary carcinoma. Dahlin reported seven cases of secondary amyloidosis with malignant tumors, in a 25-year period from the Mayo clinic. These include two cases of Hodgkin's disease and five cases of carcinoma where the primary sites were the bladder, colon, stomach, kidney, and ovary. Three of the carcinomatous cases had severe infection.[2] In Lubarsch's series of carcinomatous cases the incidence of amyloidosis was five percent, while in Higucchi's series of amyloidosis the incidence of cancer was 2.4 percent.[18,19]

Dixon's series showed nine percent due to neoplasm.[20] Briggs believes that 10 to 15 percent of cases of multiple myeloma will develop amyloidosis.[1] In 1950, Wallace culled 35 cases of Hodgkin's disease with amyloidosis from the medical literature.[21] In a series of reported cases by Razis, the incidence of Hodgkin's disease with amyloidosis was 2.1 percent.[22] A series of 53 cases of secondary amyloidosis contained three cases of Hodgkin's disease and one case of renal cell carcinoma.[1]

Hypernephroma is the most common type of carcinoma associated with amyloidosis. Ask-Upmark, in 1940, reported two cases of hypernephroma with amyloid deposit and collected 16 additional cases from the literature. Hyman, in studying over 300 cases of parenchymal neoplasms of the kidney, found four cases of renal cell carcinoma with amyloid.[18,23] In these neoplastic diseases, the amyloid deposition was observed in different organs; in order of frequency these were kidney, spleen, liver, adrenals, lymph nodes, heart, gastrointestinal tract and pancreas, lung, parathyroid, peripheral nerve, and mesentery.[19] Allusion to amyloid in thyroid tumor was made by Stoffel in 1910; subsequently Hazard drew attention to this distinct and interesting variety

of thyroid cancer, medullary carcinoma, by reporting 21 cases.[24] The neoplasm is characterized by a non-follicular solid histological pattern with presence of amyloid in the stroma. The tumor is of intermediate grade of malignancy despite its undifferentiated character. Brandenburg, in reporting a similar case, suggested what was demonstrated later — that the amyloid is formed by the carcinomatous thyroid cell.[24,25]

Occurrence of amyloid in the stroma of a malignant melanoma, as in the case reported here, is unique and hitherto not described. The amyloid deposition was present in the melanotic tumor with no deposits elsewhere, similar to the deposition seen in medullary carcinoma of the thyroid gland. Thus, the site of the deposition was different from that usually observed in other varieties of malignancies, where the amyloid deposition is of the secondary type and not within the neoplasm itself. Infection, sometimes associated with malignancies, has been suggested as a cause of amyloidosis. However, such a hypothesis in the case reported here, appears unlikely since no amyloid deposits were found except those which were in direct association with the deposits of malignant melanoma.

References

1. Briggs GW: Amyloidosis. *Ann Intern Med* 55:943, 1961.

2. Dahlin DC: Secondary amyloidosis. *Ann Intern Med* 31:105, 1949.

3. Hass G and Schultz RZ: Amyloidosis. *Arch Path* 30:240, 1940.

4. Teilum G: Pathogenesis of amyloidosis in the light of recent cytochemical investigations. *Acta Rheum Scand* 3:164, 1957.

5. Reimann HA, Sahyoun PF, and Chaglassian HT: Primary amyloidosis. *Arch Intern Med* 93:673, 1954.

6. Osserman EF: Amyloidosis. *Ann Intern Med* 55:1033, 1961.

7. Cohen AS: Amyloidosis. *N Engl J Med* 277:522, 1967.

8. Cohen AS and Calkins E: Electron microscopic observations on a fibrous component in amyloid of diverse origins. *Nature* 183:1202, 1959

9. Bennhold H: Eine spezifische Amyloidfarbung mit Kongorot. *Munchen med Wchnschr* 69:1537, 1922.

10. Divry P and Florkin M: Sur les proprietes optiques de l'amyloid. *Compt Rend Soc. de Biol* 97:1808, 1927.

11. Vassar PS and Culling CF: Fluorescent stains with special reference to amyloid and connective tissues. *Arch Path* 68:487, 1959.

12. McKinney B and Grubb C: Non-specificity of thioflavin-T as amyloid stain. *Nature* 205:1023, 1965.

13. Roussy G, Leroux R, and Oberling C: Lesions Elementaires des Substances Intercellulaires. *Precis d'Anatomie Pathologique*. Paris, Masson, 1950.

14. Reimann HA, Koucky RF and Eklund CM: Primary amyloidosis limited to tissue of mesodermal origin. *Am J Path* 11:977, 1935.

15. King LS: Atypical amyloid disease with observations on new silver stain for amyloid. *Am J Path* 24:1095, 1948.

16. Symmers WSC: Primary amyloidosis. *Rev J Clin Path* 9:187, 1956.

17. Dahlin DC: Classification and general aspects of amyloidosis. *Med Clin N Amer* 34:1107, 1950.

18. Hyman H and Leitter HE: The association of hypernephroma with amyloidosis of the kidney. *J Urol* 56:303, 1946.

19. Kimball KG: Amyloidosis in association with neoplastic disease; Report of an unusual case and clinicopathological experience at Memorial Center for Cancer and Allied Diseases during eleven years (1948-1959). *Ann Intern Med* 55:958, 1961.

20. Dixon HM: Renal amyloidosis in relation to renal insufficiency. *Am J Med Sc* 186:401, 1934.

21. Wallace SL, Feldman DJ, Berlin I, Harriss C, Glass IA: Amyloidosis in Hodgkin's disease. *Am J Med* 8:522, 1950.

22. Razis DV, Diamond N, Craver IF: Hodgkin's disease associated with other malignant tumors and certain non-neoplastic diseases. *Am J Med Sc* 238:327, 1959.

23. Ask-Upmark E: On amyloidosis induced by tumors of the kidney. *Acta Med Scan* 104:512, 1940.

24. Hazard JB, Hawk WA, Crile G: Medullary carcinoma of the thyroid — a clinical pathologic entity. *J Clin Endocrin and Metabol* 19:152, 1959.

25. Albores-Saavedra J, *et al:* The amyloid in solid carcinoma of the thyroid gland. *Lab Invest* 13:77, 1964

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*Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500, 1000, 5000 and Unit Dose.

TRANSACTIONS

House of Delegates Special Session

December 14, 1975

Joint Ad Hoc Committee on Professional Liability
Report and Recommendations

Resolution — The Practice of Defensive Medicine and
Evaluation of Medical Ethics
(From the Ocean County Medical Society)

Ad Hoc Committee on Medicaid
Report and Recommendations

Resolution — Discontinuation of Medicaid Practice

Joint Ad Hoc Committee on Professional Liability

James S. Todd, M.D., Chairman

The Medical Society of New Jersey currently assures professional liability insurance for 7,300 doctors. This has been done through the Standing Committee on Medical Defense and Insurance and the Joseph A. Britton Agency.

Over the past ten years, the Society has changed carriers three times in order to secure the most favorable rates. In 1972, there was no increase in premiums; in 1973, there was an average rate increase of 10 percent; in 1974, 23 percent; and now for a variety of circumstances, the figure is 49.5 percent. While this figure is considerably less than elsewhere in the country, it is formidable and has variously piqued members of the Society to criticism and action. Criticism and reaction come easily, but past apathy contributed to our present situation. Just as the problem has developed over the years, it is unrealistic to assume any action, no matter how revolutionary, will magically roll back the costs of professional liability insurance.

Certain facts must be stated:

1. MSNJ through its own and component society committees has been active in obtaining favorable premiums, monitoring losses, and dealing with recurrent offenders.

2. The current rates are justified by the experience and projected economic climate.

3. No group is being asked to subsidize directly other higher risk groups.

4. Malpractice suits *are* on the increase and, disturbingly also, so *are* those with merit.

5. Extensive gaps appear in our performance as individuals and societies in communicating the trends in medical liability to the public and legislators.

Complicating the situation are complex interrelationships. Professional activity, professional competence, judicial decisions, attorney activity, economic climate, development of new, more dangerous treatments, huge increase in population, and the increasing popularity of the law suit all contribute to the problem called professional liability. Such complexity does not lend itself to simple answers.

Consequently, at the last Annual Meeting in June 1975, the House of Delegates referred resolutions #10 and #12 (statute of limitations) and #24 and #33 (multiple revision proposals) "to a joint committee of the Council on Legislation and the Standing Committee on Medical Defense and Insurance or a special ad hoc committee to be appointed by the President or Board of Trustees." Furthermore, the House directed that the Executive, Legislative, and Judicial branches of State Government be urged to adopt a more rational approach in dealing with medical liability, resolving that "if reasonable measures were not effected within six months, the physicians of New Jersey be urged to withhold all but emergency medical services, and that a special session of the House of Delegates be convened to reassess this position," and also that "the President of The Medical Society of New Jersey and the Board of Trustees formulate a plan utilizing the Council on Public Relations and Council on Medical Services to inform the public of our position and the physician members of our anticipated action."

On July 20, acting on the recommendation of the Council on Legislation, the Board of Trustees established a Joint Ad Hoc Committee on Professional Liability composed of: Chairman of the Board as Chairman (James S. Todd, M.D.); Chairman and Vice-Chairman of the Council on Legislation (Meyer L. Abrams, M.D. and John D. Franzoni, M.D.); Chairman and Vice-Chairman of the Standing Committee on Medical Defense and Insurance (Paul J. Kreutz, M.D. and Alfred A. Alessi, M.D.); two members, at large, from the Council (John J. Crosby, Jr., M.D. and John R. Tobey, M.D.); two members, at large, from the Committee (Irving P. Borsher, M.D. and William J. D'Elia, M.D.); and one consultant (David R. Brewer, Jr., M.D.).

It was early apparent to the Committee that in order to influence and effect change:

1. The Society needed a comprehensive integrated program

addressing all aspects of professional liability.

2. The lack of such a program solidly supported by the membership would be a major impediment to success.

3. The current legislative atmosphere was not conducive for a successful legislative change prior to the November election.

4. Job action could not be justified without a comprehensive program supported by the membership and ignored by those capable of effecting change; that is the legislators, judiciary, and public.

Cognizant of this, your Committee on Professional Liability attempted:

— To develop alternatives to current procedures which will ameliorate current problems without abridging the rights of anyone.

— Also, to develop criteria by which to judge problems and solutions in terms of:

1. Degree of equity to patient and health personnel;

2. Efficiency of dispute resolution process;

3. Health professional accountability;

4. Actuarial soundness and predictability of proposed solution;

5. Preservation of effective doctor-patient relationship.

— And finally to develop mechanisms by which the proposed remedies will be implemented.

In this context, the Committee offers the following report for your consideration. Adoption of these recommendations will dedicate the Society with all its vigor and resources to the statutory enactment of its proposals.

Recommendations for Remedial Legislation

1. Present New Jersey law provides that an action based on alleged professional negligence shall be commenced within two years after the date of the wrongful act, and in the case of minors, by their 23rd year. Since the law also includes a discovery rule, a plaintiff can bring action any time within two years of discovery of a medical wrong allegedly resulting from professional negligence. Because of court interpretation of the discovery rule, health professionals have an indeterminate length of liability. This makes actual prediction of professional liability premiums almost impossible. Actuarial predictability is essential to insurability.

Every person in New Jersey should have the right to a reasonable length of time in which to act upon alleged professional negligence and every health professional should have the right to a definite length of liability.

Recommendation

That a strict statute of limitations be adopted as defined in the following proposed legislation except in suits involving fraud or concealment.

Adopted as amended (part 2)

Part 1

Statute of Limitations

An ACT to amend Title 2A:14-2 of the Revised Statutes limitation of actions for injuries to the person by wrongful act.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1) Every action at law for an injury to the person caused by the wrongful act, neglect, or default of any person within this State shall be commenced within 2 years next after the cause of any such action shall have accrued.

2) A cause of action shall accrue under this act on the date that the act, omission, or occurrence alleged to have caused injury to the person occurred.

3) Any action for damages as the result of injury to the person brought after the period of limitations contained in this act shall be barred from hearing by the courts of this State.

4) This act shall take effect immediately.

Adopted

Part 2

Statute of Limitations

AN ACT to amend Title 2A:14-21 of the Revised Statutes limitation of actions and extension of periods by reason of infancy or other matters.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1) If any person entitled to any of the actions or proceedings specified in sections 2A:14-1 to 2A:14-8 or sections 2A:14-16 to 2A:14-20 of this title or to a right or title of entry under section 2A:14-6 of this title is or shall be, at the time of any such cause of action or right or title accruing, under the age of 21 years, or insane, such person may commence such action or make such entry, within such time as limited by said sections, after his coming to or being *seven years of age* or of sane mind.

2) However, any action at law for an injury to the person caused by the wrongful act, neglect, or omission of another must be brought within *the first seven years of life or within two years after the act alleged to have caused injury to the person has occurred.*

3) This act shall take effect immediately.

Adopted as amended (italics indicate amendments)

2. The doctrine of Res Ipsa Loquitur, "the thing speaks for itself," was originally intended to expedite cases involving professional negligence where such negligence was obvious, for example, operation on the wrong leg. The doctrine has been gradually expanded and distorted by the courts. Everyone should have the right to a rapid resolution of his claim in all cases where professional negligence is obvious. The physician should, however, be protected from the indiscriminate use of this principle.

Recommendation

That the doctrine of Res Ipsa Loquitur be defined and clarified as stated in the following proposed legislation.

Adopted

Res Ipsa Loquitur

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

Evidence-Medical Negligence-Proof of Injury — No liability for personal injury or death shall be imposed against any provider of medical care based on alleged negligence in the performance of such care unless expert medical testimony is presented as to the alleged deviation from the accepted standard of care in the specified circumstances of the case and as to the causation of the alleged personal injury or death, except that such expert medical testimony shall not be required and a rebuttable inference that the personal injury or death was caused by negligence shall arise where evidence is presented that the personal injury or death occurred in any one or more of the following circumstances:

(1) A foreign substance was unintentionally left within the body of a patient during surgery, and (2) A surgical procedure was performed on the wrong patient or the wrong organ, limb, or part of a patient's body.

This act shall take effect immediately.

Adopted

3. Awards to patients for professional negligence have, in recent years, skyrocketed, including unsubstantiated amounts for "pain and suffering." Million dollar awards are commonplace and have a dramatic effect on increasing professional liability insurance premiums, and hence on health care costs. Every person should have the right to adequate compensation for medical injuries resulting from professional negligence. They should not, however, be compensated with indefinable, excessive awards.

Recommendation

That any settlement involving negligence of health professionals carry a maximum limitation of $500,000 for each professional so involved. (See proposed legislation)

Adopted

A Bill To Establish the Professional Liability of Health Care Practitioners

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1) No health care practitioner licensed, certified, or registered pursuant to the Revised Statutes of New Jersey shall be held liable for damages in tort attributable to an injury or wrong alleged to have occurred to any person during treatment or non-treatment in excess of $500,000.00 (five hundred thousand dollars) for a claim of professional liability.

2) This limitation does not apply when the act committed was criminal in nature, gross negligence, or willful and wanton misconduct.

3) This act shall take effect immediately.

Adopted

4. An increasing number of cases involving alleged professional negligence include an assertion that the health professional failed to give the patient adequate information for the procurement of informed consent. The present doctrine does not include a definitive standard which describes the manner and generic content of an adequate informed consent. Every patient should have the right to be informed of the material risks of medical procedures, recognizing that the health professional has to be able to exercise some flexibility in the interest of the patient's welfare.

Recommendation

That the doctrine of informed consent and disclosure be based upon the standard of practice within the profession, and that the plaintiff have the burden of proof that such standard was violated. (See proposed legislation)

Adopted

Informed Consent

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

Section 1. In a civil action based on alleged professional negligence of a person licensed under N.J.S.A. 45:9-1 et seq there shall not be submitted to the jury or the court the issue of whether or not the plaintiff who suffered the personal injury gave an informed consent to the procedure out of which such personal injury arose, unless the plaintiff shall have proved, by affirmative evidence, that the defendant did not supply appropriate information to the plaintiff in obtaining his informed consent in accordance with the recognized standard of acceptable professional practice in the profession and in the specialty thereof, if any, and in the community in which he practices or in a similar community.

Section 2. Evidence concerning informed consent shall be based upon the testimony of an expert witness, licensed to practice the same profession as the defendant.

Adopted

5. Under present New Jersey statutes, rules of evidence preclude a jury from hearing evidence on a plaintiff's collateral source of benefits. This situation not infrequently results in the plaintiff attaining reimbursement for benefits already paid through other public sources. It is in the interest of the citizens of New Jersey to prevent duplication of awards involving public monies.

Recommendation

That in all lawsuits involving health professional negligence, the plaintiff's public reimbursements shall be admissible as evidence to the jury, but shall not include private insurance benefits purchased by the plaintiff's own funds. (See proposed legislation)

Adopted

Collateral Source Law

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1) *Measure of Damages-Special Damages-Actual Economic Loss* — In any action for damages for personal injury in which liability is admitted or established, the damages awarded may include actual economic losses suffered by the claimant by reason of the personal injury, including, but not limited to cost of reasonable and necessary medical care, rehabilitation services, and custodial care, loss of services and loss of earned income, but only to the extent that such costs are not paid or payable and such losses are not replaced, or indemnified in whole or in part, by insurance, or governmental employment or service benefit programs or from any other source except the assets of the claimant or of the members of the claimant's immediate family.

2) *Evidence-Admissibility Damages-Actual Economic Loss* — In any action of damages for personal injury where it is alleged that the claimant suffered economic loss by reason of such injury, including but not limited to the cost of medical care, custodial care or rehabilitation services, loss of services, and loss of earned income, evidence shall be admissible on the issue of damages which tends to establish that any such cost or expense was paid for or payable by or any such economic loss was replaced or indemnified, in whole or in part, by insurance or governmental, employment, or service benefit programs or from any other source except the assets of the claimant or the claimant's immediate family.

This act shall take effect immediately.

Adopted

6. With the current extension of professional liability affecting all those involved in any way with the care of a patient, physicians increasingly are reluctant to involve themselves with emergency situations within hospitals. It is in the public interest for physicians to render emergency care without necessarily developing a binding relationship and without fear of subsequent suit.

Recommendation

That the law should extend immunity from liability for any act or omission in rendering emergency care in a hospital, except when such act or omission amounts to "willful and wanton misconduct." (See suggested legislation)

Adopted as amended by the House by the deletion of "gross negligence or" before the word "willful."

AN ACT concerning the rendering of emergency care or assistance by physicians or surgeons.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. Any physician or surgeon of this State or any other state may in good faith render emergency care or assistance during an emergency which occurs within a hospital or elsewhere, without incurring liability. The physician rendering such emergency care shall not be held liable for any civil damages occasioned by the prior negligence of other persons nor willful or wanton acts or omissions by other persons having rendered prior care.

2. This act shall take effect immediately.

Adopted

7. Often lump-sum settlements do not take into account changing needs of injured parties regarding dependency, rehabilitation, and longevity. Consideration should be given to those situations that necessitate long-term care or result in permanent disability.

Recommendation

That provisions be made for structured payments, under court supervision, for those cases of long-term care or permanent disability. (legislation to be drafted promptly)

Adopted

8. The existing mechanism for resolving disputes involving alleged professional negligence is excessively slow, inefficient, expensive, and inconsistent in results. It causes only a small portion of the premium dollar to go to an injured patient. Everyone, including plaintiff and defendant, should have the right to a rapid, efficient, effective, and equitable dispute resolution process. MSNJ, through its joint liaison committee, has requested the State Supreme Court by rule to make mandatory pre-trial screening of professional negligence suits. The screening panel would determine its position on the presence or absence of professional negligence and the degree of physical impairment, and encourage a settlement between the aggrieved parties when appropriate. The conclusions of the panel would be admissible in evidence in any subsequent proceedings on the case. Furthermore, if either party fails to accept the conclusion of the panel, that party should be required to post a bond to guarantee all reasonable defense and other costs resulting from further proceedings in the event such party does not prevail.

Recommendation

That if the State Supreme Court does not implement a pre-trial screening panel procedure, MSNJ cause to be introduced legislation embodying the principles of admissible pre-trial screening of professional negligence cases. (legislation to be developed)

Adopted

9. In lawsuits involving professional negligence resulting in court awards, the plaintiff's attorney in many states may receive from one-third up to one-half of that award. Some insurance companies, and a significant number of medical-legal experts feel that the contingency fee as presently structured tends to promote lawsuits based on potential damage awards, rather than merit. Clearly, it is to the benefit of all for attorneys to receive compensation in proportion to the extent of services rendered.

In New Jersey, by rule of the Supreme Court, the fees obtained by an attorney in professional liability cases are prescribed, and currently serve as a model for other states currently without contingency fee regulations.

Recommendation

That MSNJ commend the Supreme Court of New Jersey for its action in developing a contingency fee schedule, and urge it to review frequently this schedule to assure its equitableness to all concerned.

Adopted

10. The vast array of medical conditions and modalities available to use for treatment often create situations where the results of medical treatment are less than desirable. Negligence need not be a factor, for not infrequently the disease process may be beyond control, or the imprecision of available technology may produce unexpected or uncontrollable injury. The concept of injury without negligence has been enunciated both by the profession and recently by the Supreme Court of New Jersey. (Anderson vs. Somberg) This concept then must be recognized, and should be separate and apart from considerations of negligence or suits. Those patients who do currently receive compensation for such injuries via the courts, only receive a small percentage of the funds expended to purchase professional liability insurance. Furthermore, patients who will receive compensation are often required to wait long periods, with great inconvenience and often expense. Certain patients, as recipients of medical care and treatment, receive vast sums of money in compensation, while other patients, with similar or identical injuries, receive little or no compensation.

It is to the best interest of all concerned that those untoward events representing injury without negligence be promptly and equitably compensated via a mechanism other than the courts.

Recommendation

That MSNJ develop, and cause to be im-

plemented through appropriate legislation, a Medical Injury Compensation Program, whereby equitable, prompt compensation would be available for those injured under medical care other than by negligence.

Not adopted

Substitute Recommendation

That The Medical Society of New Jersey go on record as stating that the medical profession should not be held responsible for any injury without negligence as a result of medical treatment.

Adopted

Recommendations for Achieving Professional Accountability

The current socio-economic climate in all areas can best be summarized as the "Era of Accountability." In Medicine as nowhere else, the public and governmental demand for accountability requires that the profession respond. Within the profession are many mechanisms satisfying accountability about which the public knows little. Many areas requiring attention are, by judicial ruling, now beyond the legal ability of the profession to control, despite their desire to do so. Admittedly, there are areas where improvement, or at least access to accountability, should occur. The following recommendations address these issues:

1. The State Board of Medical Examiners is composed of physicians, osteopaths, chiropractors, laboratory administrators, and lay persons, and as such is not properly equipped or constituted to deal with disciplinary or educational matters affecting the performance of physicians. Ideally, the Board should limit its responsibilities to (a) licensing of health professions under their jurisdiction by examination and by reciprocity with other states; (b) certifying other health professionals such as physicians' assistants and those who employ them; and (c) prosecuting violations of the Medical Practice Act such as practicing without a license, and so on.

This then leaves a vacuum of how to deal with inappropriate practice, repeat liability offenders, the incompetent or ill physician, and the errant physician. It would seem desirable to retain these functions within the profession where peer review would have its greatest influence. To do this would require the development of an independent board with legal sanction selected by and composed of physicians whose responsibility it would be to: (a) receive and act on complaints from all sources, including the general public, charging "unprofessional conduct" on the part of a physician licensed to practice medicine in this state; (b) define and adopt rules and regulations fixing standards of professional conduct, and defining unprofessional conduct; (c) request county or state medical societies to report defined cases of unprofessional conduct for review; (d) require insurance companies to report malpractice claim settlements for review and possible further action as indicated; (e) require hospitals to report all physicians who have had privileges reduced or terminated for review and further action as indicated; (f) provide, to extent feasible, rehabilitative and corrective advice, counsel, and programs for offending physicians; and (g) provide for coordination with the State Board of Medical Examiners to control licenses of unrehabilitated physicians.

Recommendation

That MSNJ support and seek through legislation the development of a Medical Review Board composed of practicing physicians elected by physicians whose role it would be to monitor professional performance with the responsibility and authority to make definitive decisions and recommendations.

Other health-care providers are encouraged to implement such a program for themselves.

Adopted

2. Recently, increasing cognizance has been given to the problem of the sick, disabled, or addicted physician who, despite obvious infirmities for one reason or another, continues to practice. There are presently no satisfactory mechanisms for detecting or dealing with these relatively few physicians. The media and other groups are constantly pressing for a solution to this problem. The AMA has suggested state committees to address the subject but to date little has been done. It is in the best interest of the public and the profession that the sick, incompetent, or addicted physician receive prompt detection, sym-

pathetic but definitive judgment, and skillful rehabilitation to return these valuable individuals to productive activity.

Recommendation

That MSNJ through its component societies develop a system whereby those having knowledge of a sick or addicted physician may inform the Society of their suspicions. It should then be the responsibility of the *county* society to investigate the report, and take appropriate action.

Adopted as amended by the House by deletion of "well publicized 'hotline' " before the word "system" and of the word "anonymously" before the word "inform," and changing the word "State" to the word "county."

3. Peer review is the cornerstone of any mechanism to maintain quality care. Throughout the State there are currently multitudinous groups claiming to do peer review with varying success and influence. Little or nothing in peer review applies directly to the issue of professional liability.

Recommendation

That the appropriate committees of MSNJ review the current peer review programs available to physicians, particularly with reference to the issue of negligence; encouraging coordination of existing programs, and the development of new programs where appropriate.

Adopted

4. The Medical Society of New Jersey has long recognized the importance of continuing medical education, and was among the first to make education mandatory for maintenance of Society membership. The opportunities and value of continuing medical education are limited only by bounds of imagination of those directing, and can be turned toward prevention of practices leading to liability suits.

Recommendation

That MSNJ reaffirm its confidence in and support of mandatory continuing medical education, and direct the Committee on Medical Education to develop programs relative to professional liability.

Adopted

5. Many professional liability suits originate out of frustration on the part of the patient who has no clear avenues by which to vent smoldering hostility or complaints. Not infrequently, also, the suits originate through actions of ancillary personnel over which the physician has no real control, but yet for which he must stand the final responsibility.

Recommendation

That the "hospitals" in New Jersey, both directly and through the New Jersey Hospital Association, be urged to establish patient grievance committees whose function it would be to hear complaints regarding the hospital, its employees, and its physicians in order to head off negligence actions.

Adopted

Recommendations for New Solutions

As the professional liability problem has developed, it becomes clear that merely patching up the current system will have little long-term effects. It appears that the American public has decided it wishes to be compensated for the unpredictable vagaries of medical and surgical disease which not infrequently produce untoward results. Lately, the question of negligence is raised as a means of achieving payment. If this is indeed the case, which it seems to be, then the American public must begin to participate in its own financial protection. This participation will require a radical rethinking of current concepts.

The following recommendations are directed to this proposition:

1. Every physician shall have, within reason, the right to determine the conditions under which he shall treat a patient. Every patient has the right to know he will be protected against physical or economic loss from inappropriate care. So far, no allowance has been made for the doctor-patient relationship based upon mutual trust and confidence whose participants wish to assure each other of swift, sure adjudication of any disagreements.

Recommendations

(a) That MSNJ should encourage health

professionals and institutions to pursue the concept of voluntary, binding arbitration by contract; i.e., between the patient and the health professional; or patient and institution; or between the patient and the insurance mediator.

Adopted

(b) That MSNJ develop the appropriate contract forms for those physicians who may desire them.

Adopted

2. Medical liability originates from the professional service required by the sick or injured patient. Since these factors are inseparable, and interdependent, both parties participate, and, therefore, may contribute to the ultimate result, good or bad. Since neither the providers nor consumers of health services are perfect, and since health care is not an exact science, a percentage of end results will be unsatisfactory.

An emerging factor of increasing significance is technology. As more and more people receive increasingly sophisticated health care, serious unexpected and unpredictable consequences are inevitable. This then becomes a societal problem as well as a health professional problem. If the American people want progressive modern medical care as well as compensation for untoward unpredictable results regardless of presence or absence of negligence, then no longer can 360,000 physicians underwrite the liability of 220,000,000 people. A more equitable distribution of cost must be found to provide recompense to those adversely affected despite the best efforts of all concerned.

Since sickness and accident insurance is in force for the vast majority of people, it seems reasonable to include in it protection against adverse results not associated with negligence. A part of the premium would be designated for this purpose and, following collection by the insurance company, deposited in a state fund established for this use. Also, the providers would contribute to the fund proportionate to their income.

In addition, the providers would maintain basic liability insurance at a lower level determined by statute. Each physician would then be personally liable for the limits of his policy, and negligence awards above this figure would come from the common fund. Those patients with injuries without negligence as determined by a screening panel, would automatically be compensated from the fund on a predetermined scale.

In this way, a more mutual distribution of cost would occur and adjustment could be more easily accomplished. A fund of this type administered by the state would assure that sufficient monies to fully satisfy each judgment are always available. This program would maintain a protective arrangement based on the fundamental principle of all insurance; a large number of people sharing the losses produced by inherent risks on an equitable basis.

Recommendation

That MSNJ pursue the development of a refinancing plan for professional liability, asking the cooperation of an interested insurance company or acquiring a private actuary for the purpose.

Adopted

Recommendations for Education

In any discussion of professional liability it soon becomes clear how ill-informed are the profession, the public, and the legislators. Any program to remedy the current problems will fail without an accompanying program of education.

Recommendations

(a) That component medical societies shall be required to develop programs of professional and public education regarding professional liability. MSNJ through its Council on Public Relations will be responsible for supplying promotional material, and reporting progress to the Board of Trustees of MSNJ.

Adopted

(b) That members of the Board of Trustees of MSNJ should attend county society meetings in their district; and at least quarterly should issue

(at MSNJ expense) Trustee Newsletters to all their constituents highlighting current problems and society actions.

Adopted

(c) That the Joseph A. Britton Agency shall supply monthly an article for *The Journal* relating to professional liability — detailing types of suits, statistics regarding liability, and suggestions from their experience as to how to avoid suits.

Adopted

(d) That rotating educational placards on multiple other subjects as well as professional liability be made available for physicians' waiting rooms as a public educational program.

Adopted

Recommendations for Implementation of an Integrated Program on Professional Liability

The success of any program depends upon the vigor and imagination with which it is promoted. Upon the outcome of this issue may indeed rest the entire future of the practice of medicine as we know it.

Recommendations

(a) That MSNJ establish a Department of "Liability Control" headed by a full-time director with no other responsibilities. This director, if not an M.D., should have available an M.D. advisor selected by the Board of Trustees. In addition, there should be made available the services of a public relations firm and the Society lobbyist. The director will be responsible, subject to approval of the Executive Committee of the Board of Trustees, for developing, coordinating, and promoting all programs related to professional liability *to include the development of a program recognizing the special needs and problems of the physicians newly entering practice in New Jersey.*

Adopted as amended (Italics indicate amendment)

(b) That the current legislative keyman system be revised by concentrating on direct visitation of legislators at the local level, with MSNJ officers being responsible for contacts with the principal legislators.

Adopted

(c) That the component medical societies shall enlist the help, support, and expertise of hospital lay boards in their areas, thereby broadening the base from which to pursue our programs. Joint meetings between county society leaders, hospital administrators, hospital lay boards, *and local pharmacists* are encouraged.

Adopted as amended (Italics indicate amendment)

(d) That in order to finance any programs to be adopted now or in the future, there be a one-time voluntary assessment of $200 per member. The funds so derived are to be budgeted and spent under the office of "Liability Control" as approved by the Board of Trustees.

Adopted

Alternatives for Society Action

Throughout the country the frustration, restlessness, and division resulting from the professional liability situation continue to mount. So far, little benefit has been seen from the few remedial programs adopted. The practicalities of society are such that even the best programs often need the greatest of resolute action to achieve notice let alone passage. In June 1975, the House of Delegates indicated it would go so far as to withhold service if relief from an intolerable situation was not obtained. Uncontrollable events have made that alternative at this time less viable. Yet, in order to maintain a position of strength calculated to accomplish our goals, which are equitable to all, it will undoubtedly require at some time a test of our resoluteness and strength.

Consequently, the Society must be prepared for this event.

Recommendations

(a) That if the actions of this House of Delegates are not implemented by the appropriate agencies, then MSNJ indicate its inability any longer

to provide progressive medical care under contemporary restraints and hazards.

Unanimously adopted

(b) That the Board of Trustees shall be directed to make that decision based on its best estimate of the situation.

Adopted

(c) That should this action be necessary, the physicians of New Jersey be advised it is hazardous both to them and their patients to render more than emergency care.

Adopted

(d) That when professional liability policies are renewable, in the absence of a salutary guarantee of rates, the members of MSNJ be advised that the rates are unconscionable and should not be paid, effectively making it impossible for any rational physician to practice in New Jersey except under the Good Samaritan statute.

Unanimously adopted

Resolution

The Practice of Defensive Medicine and Evaluation of Medical Ethics

From the Ocean County Medical Society

Whereas, in view of the present-day trend across the nation for medical liability insurance to be rising in cost at unpredictable rates affecting adversely on the cost, availability, and quality of medical care; and

Whereas, each year in New Jersey the uncertainty arises as to the availability of obtaining malpractice coverage; and

Whereas, many legislative changes in the malpractice laws are in the process of being introduced in New Jersey; and

Whereas, the causes and solutions to the malpractice problem are multifactorial which require physicians', patients', and attorneys' education, improved recordkeeping, a good doctor-patient relationship, and post-graduate education on a continuing basis; and

Whereas, none of the above-mentioned whereases, if instituted, will in any way affect the availability or reduce the cost of malpractice insurance before four to five years; now therefore be it

RESOLVED, that in an effort to institute measures that would immediately affect some of the causes for malpractice action, The Medical Society of New Jersey should inform each of its members of the following: (1) they should begin to practice "Defensive Medicine," and (2) each member should evaluate his medical ethics of passing judgment on the diagnosis and treatment rendered by his fellow physicians prior to the obtaining of medical records.

Not Adopted

Ad Hoc Committee on Medicaid

John W. Alexander, M.D., Seymour Charles, M.D., Harvey Shwed, M.D., Co-Chairmen

The Ad Hoc Committee met over a period of several months and received extensive input from county medical societies and the various specialty societies. The following report is a consensus of those deliberations:

Findings

The physicians of New Jersey have always provided quality health care to New Jersey citizens and wish to continue to do so regardless of the economic status of the patient. Physicians have consistently developed and explored alternate delivery systems that would make quality health care available to all persons subject to the choice by the patient among private practitioners, group practices, HMO's, neighborhood health centers, and hospital clinics.

Administrative revisions enacted and being proposed by the Department of Institutions and Agencies in regard to the Medicaid Program will hasten the exodus of private practitioners from urban areas; will deplete available physician supply to serve the Medicaid population; and will deter new physicians from entering into urban practice settings.

The long-term effects of these actions will be to preclude the Medicaid patient from having the opportunity to exercise a choice of selection in the health-care delivery system and place all care in a clinic and hospital outpatient department system, which will be overloaded rapidly and result in expensive, impersonal, fragmentary, and episodic care.

Recommendation #1

That The Medical Society of New Jersey oppose those policies of the Department of Institutions and Agencies that deter private practitioners from treating Medicaid patients other than in a hospital setting.

Adopted

Recommendation #2

That The Medical Society of New Jersey pursue the enactment of legislation and regulations that will establish equal compensation to private physicians, clinics, and emergency departments for identical services.

Adopted

Recommendation #3

That The Medical Society of New Jersey take the necessary measures to cause the Department of Institutions and Agencies to make available accurate financial data so that areas where costs can be reduced without depriving recipients of needed services or forcing private providers out of the program can be recognized and addressed.

Adopted

Recommendation #4

That The Medical Society of New Jersey advise the Governor to mandate that the Department of Institutions and Agencies meet regularly with health-care providers and consumers to recommend changes that will improve the delivery of services and the care rendered under the Medicaid Program.

Adopted

Recommendation #5

That legislation be pursued to establish a representative and functioning "Medicaid Consumer-Provider Health Care Policy Board."

Adopted

Recommendation #6

That The Medical Society of New Jersey endorse the concept of reducing costs by emphasizing the provision of ambulatory care in physicians' offices rather than in hospital outpatient departments.

Adopted

Recommendation #7

That The Medical Society of New Jersey oppose the co-payment requirement for Medicaid

prescriptions which compels patients to choose between food or medicine.

Adopted

Recommendation #8

That The Medical Society of New Jersey launch a public relations program to emphasize to the public the deleterious effect of the existing Medicaid policies on health care and costs of the Medicaid Program.

Adopted

Recommendation #9

That The Medical Society of New Jersey seek legislation to direct the Department of Institutions and Agencies to develop an educational program for Medicaid recipients to increase their participation in the less expensive system of private care as opposed to the more costly utilization of hospital clinics and facilities.

Adopted

Recommendation #10

That The Medical Society of New Jersey seek legislation not only to restore the budgetary cuts affecting private practitioners, but to provide *in the future for equitable reimbursement for services rendered and* for automatic cost of living increases when indicated.

Adopted as amended (Italics indicate amendment)

Recommendation #11

That the Ad Hoc Committee on Medicaid be continued and made a functioning entity of the Society.

Adopted

Recommendation #12

That if all else fails The Medical Society of New Jersey pursue litigation on all issues with a reasonable prospect for success.

Adopted

Report adopted as amended, with commendation to the Committee

Resolution

Discontinuation of Medicaid Practice

RESOLVED, that the Ad Hoc Committee on Medicaid take immediate steps to rewrite the AMA-recommended letter on Discontinuation of Medicaid Practice in such a way that it does not engender distrust toward the practicing physician by the medically indigent.

Adopted

If your angina patient* isn't having 3 out of 4 better days than usual... try Cardilate®

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*Please note: unstable angina patients may be refractory to all long-acting nitrates

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PRECAUTIONS: As with other effective nitrates, some fall in blood pressure may occur with large doses.

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Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

SUPPLIED: 10 mg chewable tablets, bottle of 100. Also 5, 10 and 15 mg scored tablets in bottles of 100. 10 mg scored tablets also supplied in bottle of 1,000.

Also available: Cardilate® P brand Erythrityl Tetranitrate with Phenobarbital* (*Warning: may be habit-forming).

1 Russek HI: AM J M Sc 239:478, 1960

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Effective prophylaxis against attacks; increases exercise tolerance. Serious side effects have not been reported in 20 years' clinical use.

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NEW JERSEY DOCTORS' NOTEBOOK

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

In the time that the College of Medicine and Dentistry of New Jersey (CMDNJ) has been in existence, its Office of Development has been able to generate $92 million in the form of contracts, grants, and gifts from government agencies, foundations, and other sources outside of the State budget.

While recognizing the important benefits of this effort, a group of men with a deep concern for the vitality of the College and the success of its mission saw a need for a new instrument that could develop the full potential of support from the private sector throughout the State. That instrument has been organized as the independent Foundation of the College of Medicine and Dentistry of New Jersey. With four members of CMDNJ's own Board of Trustees, Gustav O. Lienhard, Franklyn P. Gerard, M.D. Everett M. Scherer, Esq., and the late George F. Smith, spearheading the effort, the Foundation was organized in 1974 as a non-profit corporation. Its Board of Trustees includes 22 business and industrial executives and professional, foundation, and civic leaders from throughout the State.

The independent Foundation of CMDNJ is a strong link in the partnership between the private and public sectors, necessary not only to the College but to the availability of health-care providers and the delivery of health care to New Jersey. By separate yet complementary routes, both sectors can bring additional dimensions of enrichment to the success pattern of CMDNJ.

In the public-private partnership, the State's role is to provide the basic funding for the capital construction and the operation of the College system. Exhilarating though the State's commitment may be, tax dollars simply cannot support every requirement, no matter how worthwhile, or every program, no matter how vital. The Foundation's role therefore, is to infuse additional support in a precise and selective manner to help bring CMDNJ to fuller measures of its promise.

As a result of special seed gifts from its trustees and other friends, the Foundation was able to launch a limited grants program last year to support valuable programs at the College, and it is now completing plans for a major, long-range, fund-raising effort — the Advancement Program — to make it possible to increase this support dramatically. The Foundation's Advancement Program will mobilize the resources of private philanthropy to help provide better health care in New Jersey through the College.

Dr. James G. Affleck, who is chairman of the American Cyanamid Company and chairman of the Foundation's Board of Trustees has said: "Our goal is to generate the private support the College needs in pursuing its missions of education, research, and service to provide readier access to first-class health care for all the people of New Jersey."

CMDNJ welcomes the support of private philanthropy generated by the Foundation. While New Jersey was later than many other states in getting its health-science education program started, the growth and development of CMDNJ has been dramatic. The support the private sector has already given and will continue to give is a vital additional dimension in continuing that record. We know that the biomedical professions in the State are aware of the need. We trust that they will lead the way.

The Foundation has established offices on the Newark campus of CMDNJ at 100 Bergen Street. Its executive director is Malachy M. Glynn, who helped develop the Foundation while serving as director of private support for CMDNJ.

A long-range program of private support to the College has been charted by the Foundation in these areas:

- Educational enrichment.
- Scientific research.
- Assistance to CMDNJ students.
- A College Venture Fund to assist CMDNJ to move in new directions.
- Community health services, including projects to help the College to relate effectively to the biomedical professions and to stimulate expanded continuing educational programs and community health demonstration models.
- Facilities and equipment support to assist the College in meeting its specific program objectives by providing equipment and facilities for which public funds will not be available.

The Foundation has completed its first series of grant awards, which include support for

- Establishment of a college-wide, student emergency loan fund.
- Minority-student summer educational program.
- The college-wide student summer research program.
- Evaluation of teaching programs.
- Guest lecturers at the CMDNJ-Graduate School of Biomedical Sciences.
- An applied nutrition education program.
- Faculty workshops toward effective teaching.
- A merit scholarship program at the graduate school.
- A study of the treatment of behavior disorders.

Additionally, the Foundation will support an international symposium on oral physiology and occlusion at the CMDNJ-New Jersey Dental School next September.

In addition to Dr. Affleck and the four members of CMDNJ'S Board of Trustees, already mentioned, leadership is being provided by:

Arthur Bernstein, M.D., Maplewood
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Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

The problems of predicting what the HEW budget will be continue to cause difficulty, not only for those involved in PSRO and other developments, but also for those who write about them. These articles are written six to eight weeks before you see them. At the present time (late December), the Labor/HEW Appropriations Bill for fiscal year 1976 is awaiting action by President Ford. Since it exceeded the White House budget by over $900 million, the President may well veto it. The appropriations included $47.6 million for PSRO; HEW had requested $50 million. If the $47.6 million stands, it will allow for ten additional PSROs to be put in Conditional status, and will create a massive barrier to the rest of the program. HEW people are looking into other sources of funds, but the picture is cloudy. There was $90 million aimed at Health Planning and Development, or nearly twice as much as for PSRO. Health Planning and Development includes the HSA† development in the various areas. I hope that all of you are aware of HSA planning in New Jersey.

Are you aware that more money has been granted to organizations in New Jersey to plan and organize HMOs than any other state? An interesting alternative to the closed-panel HMO is the Individual Practice Association (IPA). This involves a prepaid plan covering medical and ancillary services, but preserves the free choice for both patient and physician (the latter conducts his practice in his own office). While the providers are of necessity at risk, the presence of the key mechanism of peer review maintains quality and efficiency. This keeps the physicians in control of their own destinies.

†Health Service Area

Therapeutic Drug Information Center*

The Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associated Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.S., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m. — telephone (212) 622-8989 or 636-7535. The following are questions and answers handled by the Center recently.

In the October 1975 issue of *JMSNJ*, page 853, question #1 concerned the reported incidence of Flagyl® being shown to cause malignant tumors in mice and rats. Since then the following statement has been released by FDA to the Health Research Group, Washington, D.C.

"The FDA shares your (the Health Research Group) concern over the carcinogenicity of metronidazole in rodents. Nevertheless, the available evidence indicates that the total dose of metronidazole given to patients is of such a low order of magnitude, when compared to the life-span doses given to rodents, that the element of carcinogenic risk in treating trichomoniasis is very low.

"Further. it is our conclusion, which is shared by many experts and by our OB-GYN Advisory Committee, that trichomonal vaginitis is an important disease, causing much suffering among its victims, and that metronidazole is the only drug currently marketed in this country which is effective in its cure.

"We therefore conclude that benefit/risk considerations at this time indicate that metronidazole should continue to be available for the treatment of trichomoniasis, with labeling that includes an adequate discussion of animal carcinogenicity and possible carcinogenic hazard to humans and provides guidance on appropriate uses of the drug. The labeling is currently undergoing revision with respect to the indications and warnings section, and a box warning is being developed."

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1. Please provide me with information concerning the mixing of different insulin preparations.

In considering the mixture of various insulin preparations, one must be aware of the fact that insulin injection U.S.P. (regular insulin) is of two types: that which has a neutral pH (NRI) and that which has an acid pH (ARI).[1] Since 1973, all Lilly's regular insulin has been NRI, but Squibb's regular U-40 and U-80 are of the ARI type, while their U-100 is of the NRI type.[2]

Unlike ARI, NRI may be mixed with modified insulins in any desired proportions.[2]

ARI may be mixed with isophane insulin suspension U.S.P. (NPH) in any desired ratio, but the mixing should be done immediately prior to use in order to prevent physical changes which may cause unpredictable time activities. ARI may be mixed with insulin zinc suspension U.S.P. (Lente Insulin) provided that the ARI-Lente ratio does not exceed 1:1. If this ratio is exceeded, the pH difference results in an unpredictable time-activity curve. In addition, this ARI-Lente mixture should be used immediately following mixing.[3] ARI may be combined with protamine zinc insulin suspension U.S.P (PZI) but because of the excess protamine in PZI, mixtures of ARI with PZI in a ratio of less than 1:1 may have the same activity as PZI alone. As the ARI-PZI combination approaches a 2:1 ratio, a time activity curve approximating that achieved with NPH is obtained. When the ARI to PZI ratio exceeds 2:1, the time activity curve of the mixture approaches that of an ARI-NPH combination.[4]

Insulin zinc suspension U.S.P. (Lente Insulin), prompt insulin suspension U.S.P. (Semilente Insulin), and extended insulin zinc suspension U.S.P. (Ultra Lente Insulin) may be combined with one another in any desired ratio.[5]

Mixture	*Proportion*
Neutral Regular Insulin with Modified Insulins	May be mixed in any proportion
Acid Regular Insulin with Isophane Insulin (NPH)	May be mixed in any proportion[a]
Acid Regular Insulin with Insulin Zinc Suspension (Lente)	May be mixed but the ratio should not exceed 1:1[a]
Acid Regular Insulin with Protamine Zinc Insulin (PZI)	May be mixed but the ratio is important[a] (see above)
Lentes	May be mixed in any proportion

One other precaution which should be observed when mixing insulins is that the order of mixing should not be altered. Patients who must mix two types of insulin should be cautioned not to change the order of mixing or the model and brand of the syringe without first consulting their physician or pharmacist. The reason for the warning is that potential dosage errors may result when regular insulin is mixed with a

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*This month's column was prepared by J. M. Rosenberg, Pharm. D., W. A. Simon, Pharm. D., P. Sangkachand, B.S., and H. Kirschenbaum, B.S., Brooklyn College of Pharmacy, LIU.

[a]Must be mixed immediately prior to use.

modified insulin in syringe systems of varying design. The problem is attributed to the holdup or "dead space" volume in certain designs of syringes.[6]

In conclusion, NRI offers the advantage over ARI in that it can be mixed with the modified insulins in any desired ratio and does not have to be prepared immediately before use. Moreover, NRI was found to have increased stability when compared with ARI because of a slower rate of deamination.[1] The table on the previous page can serve as a guide for the mixing of insulins.

References

[1]Galloway JA *et al: Diabetes Mellitus.* Indianapolis, Indiana, Lilly Research Laboratories, 1973, p. 38.

[2]Rosenbloom A: Advances in commercial insulin preparations. *Am J Dis Child* 128:631-633, 1974.

[3]Anon: *American Hospital Formulary Service,* Washington, D.C., American Society of Hospital Pharmacists, 68:20.08, 1975.

[4]Scheller JC Jr and Ormsby MD: Frequently asked questions about insulin. *Hospital Pharmacy* 6:7-10, 1971.

[5]Anon: *American Hospital Formulary Service,* Washington, D.C., American Society of Hospital Pharmacists, 68:20.08, 1975.

[6]Anon: Warnings required for insulin syringes. *A.S.H.P. Newsletter* 8:2, 1975.

2. Please provide me with information concerning products available for anergy testing.

Anergy, an immunological deficiency, has been defined as diminished immediate or delayed hypersensitivity to specific antigens.[1] Since certain conditions such as Hodgkin's disease, active sarcoid, metastatic carcinoma, miliary tuberculosis, and acute leukemia are associated with anergy, the determination of this immune deficit may be useful as a diagnostic tool.[2, 3]

Anergy may be evaluated by utilizing delayed hypersensitivity skin tests which measure pre-existing immunity to microbial agents or acquired immunity to sensitizing chemicals. Delayed hypersensitivity skin tests with antigens such as tuberculin, histoplasmin, and coccidioidin are reliable for determining prior infection to the respective microbial agents. Negative reactions usually indicate that a patient has not been infected or sensitized to the agent but also may indicate anergy.[2] Antigens commonly available for delayed hypersensitivity testing (interpretations of the results range from 24 to 72 hours) include: purified protein derivative (PPD) (available from various companies such as Parke Davis), candida (Hollister-Stier), trichophyton (Hollister-Stier), streptokinase-streptodornase (Varidase*, Lederle), mumps (Eli Lilly) and coccidioidin (Cutter).

In addition, dinitrochlorobenzene† (DNCB), a sensitizing chemical, is useful in diagnosing anergy. Experience has shown that when DNCB is applied to the skin, sensitization, (approximately 85 percent of the population, takes place in the form of an allergic reaction which occurs within 7 to 21 days. DNCB offers the advantage that previous exposure is not required. A negative response (no allergic reaction) may be equated with immune impairment.

Briggs[3] stated that mumps antigen alone may be used as a test for anergy, since most of the normal population has been exposed to mumps virus and therefore will react positively.

However, Palmer and Reed[4] evaluated delayed hypersensitivity responsive rates in a large hospitalized population for sensitivity to six skin test antigens (PPD, histoplasmin, coccidioidin, mumps, candida, and trichophyton). They found that the reactivity rates to the antigens were mumps, 68 percent; candida, 63 percent; trichophyton, 62 percent; tuberculin, 33 percent; histoplasmin, 26 percent; and coccidioidin, 13 percent. The combination of PPD, mumps, candida and trichophyton gave an overall reactivity rate of 91 percent. The addition of histoplasmin or coccidioidin resulted in an increase of less than 1 percent each in reactivity rates of the total population. When all six antigens were used, 92.4 percent of the total population were sensitive to one or more antigens, leaving 7.6 percent who reacted to none, and many of the patients who were anergic to all antigens tested had such illnesses as uremia, malignancy, or were receiving steroid medication which is known to be associated with anergy.

In conclusion, it appears that no single test is always satisfactory in anergy screening. A battery of tests, utilizing commonly available antigens, may be necessary to determine this immunological deficit.

References

[1]*Dorland's Illustrated Medical Dictionary,* 25th edition. Philadelphia, Saunders, 1974, p. 86.

[2]Anon.: Delayed hypersensitivity skin testing. *Pharmacy Bulletin,* (Bassett Hospital Cooperstown, N.Y.) 5:1-2, 1975.

[3]Briggs J: Delayed hypersensitivity skin testing. *PRN Memorial Hospital Medical Center of Long Beach* 8:1, 1975.

[4]Palmer DL and Reed WP: Delayed hypersensitivity skin testing. *J Infect Dis* 130:132-137, 1974.

3. What is the drug of choice for postpartum lactation suppression?

The most commonly used hormonal agents for postpartum lactation suppression include oral diethylstilbestrol (DES), oral chlorotrianesene (TACE), and a parenteral preparation containing in each 2cc testosterone enanthate 360 mg with estradiol valerate 16 mg (TEEV, Deladumone OB). It appears that the above agents either reflexly lead to the release of the prolactin-inhibiting factor[1,2] or act directly in an unexplained manner on the mammary gland.[1] DES is usually administered in a dosage of 5 mg one to three times daily for a total of 30 mg[3] (approximate cost to pharmacist ranges from 6 to 15 cents[a]). Chlorotrianesene, a synthetic non-steroidal estrogenic substance, is usually administered in

†Not commercially available as a skin test; available as a chemical from various companies.

[a]Prices based on 1975 *Red Book. Red Book,* Oradell, New Jersey, Medical Economics Co., 1975.

one of three ways:[4] one 12 mg capsule four times daily for seven days (approximate cost to pharmacist $2.20[a]), or two 25 mg capsules every six hours for six doses (approximate cost to pharmacist $1.90[a]), or one 72 mg capsule twice daily for two days[4,5] (approximate cost to pharmacist $2.15[a]). TEEV is usually administered once as a 2 cc intramuscular injection[6] (approximate cost to pharmacist $3.60[a]).

Morris and associates [7] conducted a double-blind, placebo controlled study on 484 puerperal patients who did not wish to breast feed their newborn infants. They treated the patients with one of three preparations: oral chlorotrianesene, TEEV, or placebo. Each patient was examined during her hospital stay and received a questionnaire which was to be completed 14 days after delivery. In addition, each patient was especially urged to return for a follow-up visit approximately six weeks after delivery. The results indicated that both drugs were significantly more effective than placebo for the relief of breast engorgement, breast discomfort, and inhibition of lactation: TEEV was reported as being superior to chlorotrianesene.

Schwartz and co-workers[8] evaluated four methods of postpartum lactation suppression in 353 patients in a double-blind controlled study. At days three and four of the hospital stay, patients fitted with a tight bra and treated with either oral chlorotrianesene, oral DES, or intramuscular TEEV, experienced significantly less breast tenderness and lactation than patients fitted with a tight bra and given an oral placebo. At day four, TEEV and DES appeared significantly better than chlorotrianesene in these parameters. A total of 124 patients (48 percent) experienced continued or rebound breast engorgement after discharge from the hospital. While there were no significant differences among the four different treatment groups, the authors stated that slightly fewer TEEV patients reported this. The mean number of days before these patients experienced breast engorgement, however, was highest for patients who had received chlorotrianesene and lowest for patients who had received DES.

Few reports have compared adverse effects of the above therapies for postpartum lactation suppression.[2] General untoward effects reported with DES include nausea and vomiting, abdominal distress or pain, uterine bleeding, anorexia, diarrhea, vertigo, headache and cutaneous rashes.[3] Those reported with TEEV include virilization (manifested by hirsutism, changes in the voice and acne), pain at the injection site, convulsions, cholestatic jaundice, uterine bleeding, and localized dermatitis.[6] Chlorotrianesene use has been associated with untoward effects, such as gastrointestinal side effects, edema, and skin reactions.[5] It should also be noted that any estrogen or drug combination containing estrogen is contraindicated in patients with: (1) a family or personal history of suspected or established breast or genital cancer; (2) present or prior thromboembolic disorders or cerebral apoplexy; (3) impaired liver function; (4) vaginal bleeding of unknown cause; (5) Hodgkin's disease or malignant melanoma; (6) plans for immediate elective surgery; or (7) hypertension.[2] In addition, an increased incidence of thromboembolism has been associated with the suppression of lactation by estrogens.[9]

One difference noted between the various forms of drug therapy is that the stimulus of suckling or any breast manipulation may greatly antagonize the inhibitory effect of TEEV. Thus, those patients who after receiving TEEV change their minds and wish to nurse their babies may be able to do so.[2]

In conclusion, our search has not uncovered clear cut significant differences among the various drug regimens for postpartum lactation suppression, although several of the authors appeared to prefer TEEV. The various forms of therapy were significantly superior to placebo when evaluated during the hospital stay, but did not offer any significant advantage in preventing breast engorgement after discharge from the hospital. TEEV, the most expensive therapy, apparently differs from the other drugs as its inhibitory effect on lactation can be antagonized.

References

[1]Llewellyn-Jones D: Inhibition of lactation. *Drugs* 10:121-129, 1975.

[2]Vorherr H: Suppression of postpartum lactation. *Postgrad Med* 52:145-151, 1972.

[3]Anon: *Physicians' Desk Reference.* Oradell, N.J., Medical Economics Co., 1975, p. 921.

[4]Anon: *American Hospital Formulary Service.* Washington, D.C., American Society of Hospital Pharmacists, 68:16, 1969.

[5]Anon: *Physicians' Desk Reference.* Oradell, N.J., Medical Economics Co. 1975, pp. 1070-1071.

[6]Anon: *Physicians' Desk Reference.* Oradell, N.J., Medical Economics Co., 1975, p. 1461.

[7]Morris JA, *et al*: Inhibition of puerperal lactation. *Obstet Gynecol* 36:107-114, 1970.

[8]Schwartz DJ, *et al:* A clinical study of lactation suppression. *Obstet Gynecol* 42:599-606, 1973.

[9]Daniel DG, *et al*: Puerperal thromboembolism and suppression of lactation. *Lancet* 2:287-289, 1967.

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[a]Prices based on 1975 *Red Book. Red Book,* Oradell, New Jersey, Medical Economics Co., 1975.

210th Annual Meeting — June 4-8, 1976

SUPPOSE THE ARTS WENT "PAY AS YOU GO"

Symphony tickets, $30. Ballet, $24. Opera, $40. Museum Admissions, $10.50. If the arts were forced to charge fees that really covered operating or production costs, if the arts went "pay as you go," not many people would go.

And life would be immeasurably duller.

Thing; aren't that way, thankfully. Audiences for the visual and performing arts are expanding. Many museums are free to the public. Ticket prices, where up, are within reason.

But the arts face an enormous cost problem. They are "labor-intensive"; many individuals are involved, and in these fields the effects of inflation are particularly severe.

The difference between operating costs and ticket receipts is an "income gap" made up by gifts—from individuals, government, foundations, and business. Those who can afford to do so, support the arts so that all can benefit.

If you support the arts financially, we urge you to continue to do so as generously as possible. But there are other ways to help. Urge your local, state, and national legislatures to lend assistance to the arts. If you have spare time, volunteer to help in fund raising activities.

Encourage attendance and support among your friends and neighbors. Sponsor local performances and exhibitions. Be a patron, every way you can.

SUPPORT THE ARTS

Business Committee for the Arts, Inc., 1700 Broadway, New York, N.Y. 10019

PRESENTED AS A PUBLIC SERVICE BY RCA CORPORATION IN COOPERATION WITH THE BUSINESS COMMITTEE FOR THE ARTS

Medicaid Formulary

The New Jersey Health Services (Medicaid) Program has adopted a drug formulary as one (hopeful) cost-containment mechanism that might enable us to restore recent fee reductions. By asking physicians to allow interchange of listed products, we are not asking physicians to do anything differently than they do every day in hospitals.

New Jersey hospitals generally operate with a formulary and physicians (except in extenuating circumstances) allow interchange of those products for their inpatients. The Medicaid Program is simply requesting that physicians allow the same interchange for their Medicaid patients. The Program has limited the listed alternate products in the formulary to those marketed by the so-called major manufacturers, thereby giving physicians every possible assurance of quality. It is our hope that you will utilize this generic formulary to the fullest extent possible. (Copies were mailed recently to every physician in New Jersey.)

A number of commonly asked questions regarding this issue, with the answers, are here presented to assist the practicing physician.

1. Q: What is the pharmacist's responsibility if the prescriber does not indicate "FAP" (Formulary Alternate Permitted) or "DAW" (Dispense as Written)?

A: The Board of Pharmacy has stated that unless the prescriber indicates that substitution is permitted the pharmacist must dispense as written. However, for purposes of Medicaid reimbursement, we are saying that the prescriber must indicate either "FAP" (Formulary Alternate Permitted) or "DAW" (Dispense as Written). If the prescriber does not, the pharmacist can either call the prescriber and get a verbal indication or advise the recipient to return to the prescriber requesting that indication.

2. Q: If a prescription is presented at a time when the prescriber cannot be reached and does not have the "DAW" or "FAP" indication, what course of action is open to the pharmacist?

A. The pharmacist should indicate on the face of the prescription the date and time when he attempted to reach the prescriber and then, to be in compliance with the Board of Pharmacy laws, he must dispense the prescription as written.

3. Q: When a prescription is written generically, must it have "DAW" or "FAP" indication?

A. No.

4. Q: When a prescription is written generically, must we use the formulary product?

A: No. The Pharmacy Manual specifically states that when a prescription is written generically, the pharmacy provider shall dispense the least expensive product of equal therapeutic effectiveness available. Available means in his pharmacy.

5. Q: When a prescriber writes a prescription for *Principen*® and indicates "FAP," must the pharmacist dispense *Pen-A*®?

A: Yes, unless the pharmacist gets specific permission from the prescriber to dispense another product. In order to make the formulary legal, the prescriber must know what brand(s) will be substituted if he allows a substitution. Therefore, the pharmacist must dispense the alternate product. If he does dispense another product, it must be billed to Medicaid at no more than the AWP (Average Wholesale Price) for the alternate product listed.

6. Q: Shouldn't the formulary be a MAC (Maximum Allowable Cost) formulary, allowing use of certain specified manufacturers but allowing only a fixed maximum price for multi-source drugs?

A: In effect that is what we have done. Our formulary allows the use of certain specified manufacturers' products and we are using AWP (Average Wholesale Price) as a MAC (Maximum Allowable Cost).

7. Q: Is blanket authorization for either "DAW" or "FAP" by a prescriber permitted?

A: Yes. A blanket authorization to that effect, signed by the prescriber, should be retained in the pharmacy and it would be acceptable.

8. Q: If a prescription is written for a brand name and "FAP" has been indicated, but the pharmacist does not have the alternate brand in stock, is it permissible to dispense the original trade name product that was prescribed?

A. Yes, it is. The rationale is that if the prescription is written for Acromycin-V® and the prescriber has indicated "FAP" he is in effect saying, "I want the patient to have Acromycin-V® but I will allow the substitution of a listed tetracycline." Therefore, if the pharmacist dispenses Acromycin-V® that would be acceptable. However, it should be billed at no more than the AWP for a listed tetracycline.

9. Q: Is it legal for a nurse to indicate "DAW" or "FAP" in the absence of the prescriber?

A: No, it is not. Not anymore than it is legal for the nurse to telephone a prescription without the direct order of the prescriber.

10. Q: Must the pharmacist dispense alternate products when refilling a prescription that was originally filled before the formulary became effective?

A: No. When refilling prescriptions that were originally filled prior to the adoption of the formulary, we would expect the pharmacist to dispense the same product that was dispensed originally.

11. Q: Will other products and/or manufacturers be added to the formulary?

A: We anticipate quarterly up-dates with the next one probably in April, 1976. We expect to add other drug products as well as other manufacturers if the products can be safely interchanged and if other manufacturers meet our requirements, including price.

12. Q: Can the prescriber use a rubber stamp to indicate either "FAP" of "DAW"?

A: The prescriber may use any method he chooses, however, if the indications are in anything other than the prescriber's handwriting, they must be initialed. That is, if a rubber stamp is used, the prescriber must write his initials next to the rubber stamped indication.

13. Q: Do you expect prescribers to cooperate in allowing the interchange?

A: Yes, we do because we are not asking prescribers to do anything differently than they are already doing every day of the year in hospitals. Hospitals in the State of New Jersey operate under a formulary and the prescribers, with certain exceptions, allow interchange of the products without knowing what brand will be substituted. In our formulary we have gone a step further to reassure the physician by telling him what brands will be substituted.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY — Ramon Kasilag, M.D., 44 Barr St., Regina, Saskatchewan, Canada. Santo Tomas, 1960. Board eligible. Group, partnership, or solo. Available (call 201-664-4802 — Dr. A. Sobel — for information).

DERMATOLOGY — Sidney A. Hochman, M.D., 120-27E Alcott Place, Bronx, New York 10475. Einstein 1968. Board certified. Partnership or group. Available.

CARDIOLOGY — Howard C. Rothman, M.D., 435 East 70th Street, New York 10021. Cincinnati 1970. Board certified (medicine). Group or partnership. Available July 1976.

Ibrahim A. Sarris, M.D., 6511 Landover Road, Apt. 204, Cheverly, Maryland 20785. El-Azhar (Egypt) 1970. Board eligible. Group, partnership, associate, solo. Available July 1976.

FAMILY PRACTICE — Daniel M. Blumkin, M.D., 330 Norwalk Road, Springfield, Illinois 62704. Rochester 1973. Group. Available July 1976.

Hasmukh P. Patel, M.D., 1/1B, 21 Walnut Road, Glen Cove, New York 11542. B.J. Medical (India) 1970. Group partnership. Available July 1976.

Michael G. Maroldo, M.D., 304 Elsmere Street, Wilmington, Delaware 19804. Wayne State 1974. Group or partnership. Available July 1976.

Renato T. Diaz, M.D., 21 Walnut Rd., Apt. II-2A, Glen Cove, New York 11542. University of the East (Philippines) 1966. Board eligible. Group. Available July 1976.

GENERAL PRACTICE — Andrew Larkin, M.D., 4535 Larchwood Ave., Philadelphia 19143. Harvard 1972. Group or partnership. Available July 1976.

INTERNAL MEDICINE — Jung-San Shen, M.D., 377 S. Harrison Street, Apt. 16-W, East Orange 07018. Kaohsiung Medical (Taiwan) 1968. Board eligible. Subspecialty, pulmonary diseases. Solo, group, or hospital. Available July 1976.

Manoj Desai, M.D., 48-56 44th Street, Woodside, New York 11377. B.J. Medical (India) 1969. Board eligible. Subspecialty, oncology. Group, partnership, or hospital. Available July 1976.

Chau-Fe Huang, M.D., 245-01 75th Avenue, Glen Oaks, New York 11004. Chungshan Medical (Canton, China) 1966. Board certified. Subspecialty, cardiology. Group or partnership. Available July 1976.

Daniel Markowitz, M.D., 785 Skynob Drive, Ann Arbor, Michigan 48105. Einstein 1971. Board certified. Subspecialty, pulmonary diseases. Group, partnership, or hospital. Available July 1976.

William W. Tan, M.D., 250 Mt. Vernon Place, Apt. 2-H, Newark 07106. Indonesia 1964. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available July 1976.

Leslie C. Feigin, M.D., 361 Park Ave., Apt. B2, Orange, N.J. 07050. CMDNJ 1973. Board eligible. Group or partnership in northern New Jersey. Available July 1976.

Martin W. Isenman, M.D., 758 Elmwood Terrace, Rochester, New York 14620. NYU (Downstate) 1975. Subspecialty, rheumatology. Board certified. Group or partnership. Available July 1976.

Anderson Tsai, M.D., 121 Congress St., Brooklyn 11201. Kaohsiung (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976 (212-237-1338).

Stephen W. Borrus, M.D., 7118 Bonita Drive, Miami Beach, Florida 33141. CMDNJ 1973. Board eligible. Group or partnership. Available July 1976.

Nilesh Rana, M.D., 230 Fairhaven Drive, Jericho, New York 11753. T.N. Medical (India) 1969. Subspecialty, gastroenterology. Board eligible. Group, partnership, hospital. Available July 1976.

NEUROLOGY — Anthony C. Breuer, M.D., 83 Craftsland Rd., Brookline, Mass. 02167. Harvard 1970. Board eligible. Group, partnership, hospital. Available July 1977.

OBSTETRICS AND GYNECOLOGY — Fa-Tsair Shieh, M.D., 412 West 115th Street, Apt. 2-W, New York 10025. China (Taiwan) 1970. Board eligible. Group, partnership, or solo. Available July 1976.

Jiunn S. Cheng, M.D., 1757 East Raleigh Court, Apt. 168-A, Ocean, New Jersey 07712. Kaohsiung Medical (Taiwan) 1964. Board eligible. Solo or group.

Choon-Won Koo, M.D., 383 Lexington Ave., Youngstown, Ohio 44504. Chonnom University 1967. Solo or group. Available July 1976.

Thomas P. McCormack, M.D., 33 Highland St., Apt. 5-F, New Britain, Conn. 06052. Georgetown 1970. Board eligible. Group or partnership.

Min-Chung Lin, M.D., 30-33 72nd Street, Jackson Heights, New York 11370. Taipei (Taiwan) 1970. Board eligible. Partnership or group. Available July 1976.

Alfredo Cola, M.D., 1001 Dorchester Road, Apt. 1, Brooklyn, New York 11218. Uruguay Medical 1970. Board eligible. Partnership or association. Available July 1976.

ORTHOPEDIC SURGERY — Alfred G. Krebs, M.D., 666 Massachusetts Avenue, Acton, Massachusetts 01720. Jefferson 1969. Board eligible. Group, partnership, or solo. Available July 1976.

PEDIATRICS — Waled H. Chowdhury, M.D., 53 Linden Avenue, Irvington 07111. Dacca Medical (Bangladesh) 1970. Board eligible. Solo or partnership. Available July 1976.

R. Natesan, M.D., 85 Manor Drive, Apt. 3C, Newark 07106. Madurai 1965. Board eligible. Group, partnership, associate, solo. Available July 1976.

Surendra C. Sheth, M.D., 900-17-B, Coop City Blvd., Bronx, New York 10475. Baroda 1970. Board eligible. Group or partnership. Available July 1976.

Jack C. Wu, M.D., Anderson Hospital and Tumor Institute, Houston, Texas 77025. Kaohsiung (Taiwan) 1968. Subspecialty, hematology and oncology. Board eligible.

Peri Kamalakar, M.D., 167 Crestmount St., Tonawanda, New York 14150. Buntur (India) 1967. Subspecialty, hematology and oncology. Board certified (pediatrics). Group, partnership, associate, solo. Available September 1976.

Gianmaria Minervini, M.D., 908 Hudson Street, Hoboken 07030. NYU 1973. Board eligible. Group, partnership, clinic. Available July 1976.

Dong H. Kim, M.D., 59 Van Horn Street, Demarest 07627. Catholic (Korea) 1960. Board certified. Solo, partnership, group. Available July 1976.

Michael B. Andorsky, M.D., 145 West 71st Street, New York 10023. Vermont 1970. Board certified. Group, partnership, solo. Available July 1976.

G. S. Saluja, M.D., 43-44 Kissena Blvd., Apt. 6E, Flushing, New York 11355. India Institute of Medical Science 1969. Subspecialty, pediatric hematology. Board certified. Group, partnership, solo, hospital. Available July 1976.

PLASTIC SURGERY — Mark B. Handler, M.D., 2417 Hempstead Road, Toledo, Ohio 43606. Dalhousie (Nova Scotia) 1969. Board eligible. Partnership or group. Available July 1976.

RHEUMATOLOGY — Robert S. Katz, M.D., 102 West 39th Street, Apt. 3A, Baltimore, Maryland 21210. Maryland 1970. Board certified (internal medicine). Group, hospital, association. Available July 1976.

SURGERY — Narasimha S. Rao, M.D., 9601 Ashton Road, Apt. N-5, Philadelphia 19114. Osmania (India) 1963. Board eligible. Subspecialty, vascular surgery. Group, partnership, associate. Available July 1976.

J. Gerard Crowley, M.D., 333 East 34th Street, New York 10016. Dublin (Ireland) 1965. Board eligible. Subspecialty, peripheral vascular surgery. Partnership. Available July 1976.

Walid A. Khuri, M.D., 200 Washington Square, Richlands, Virginia 24641. American University (Beirut) 1966. Board certified. Group, partnership, associate, solo, hospital. Available January 1976.

William Doscher, M.D., 2500 Johnson Ave., Riverdale, New York 10463. SUNY 1968. Board certified. Subspecialty, vascular surgery. Group, partnership, or hospital. Available July 1976.

Gabriel D. Cacuci, M.D. 5104 Skillman Ave., Woodside, New York 11377. Cluj University (Romania) 1968. Board eligible. Group, partnership, associate, solo. Available.

Luis A. Barranco, M.D., Calle Jobos, Ponce, Puerto Rico 00731. Madrid 1956. Board eligible. Group, partnership, hospital. Available.

Sarat K. Dash, M.D., 410 Prospect Street, Apt. 3B, East Orange 07017. S.C.B. Medical (India) 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, solo. Available July 1976.

Sham Bajina, M.D., 2200 Benjamin Franklin Parkway, Suite 1501, Philadelphia 19130. Subspecialty, peripheral vascular surgery. Board eligible. Group, partnership, solo, institution. Available.

Omkar N. Tiku, M.D., 585 Bloomfield Ave., West Caldwell 07006. Calcutta (India) 1962. Board certified. Partnership, solo. Available.

UROLOGY — Noel Tak-Cheung Hui, M.D., 5715 S. Drexel, Apt. 305, Chicago 60637. National (Taiwan) 1970. Board eligible. Solo or group. Available July 1976.

Kwang Hoon Kim, M.D., 1935-17A Eastchester Rd., Bronx 10461. Seoul National 1969. Board eligible. Solo, partnership, group. Available August 1976.

Chester I. Stone, M.D., 40 Morrow Ave., Scarsdale, New York 10583. CMDNJ 1971. Board eligible. Partnership, group. Available July 1976.

210th Annual Meeting

June 4-8, 1976

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*AVAILABLE ON REQUEST: Ronald L. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprints from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 196

CLINICAL NOTE

Drugs Causing Dystonia (Dyskinesia) and Diphenhydramine

P. A. Menon, M.D., Lemoore, California*

A variety of psychotropic drugs may cause dystonias. Diphenhydramine (Benadryl[a]) may be effective in reversing the symptoms of acute dystonia.

Phenothiazines and haloperidol are widely known to cause an acute dystonia syndrome. The dystonia usually occurs in patients who are on prolonged medication for specific conditions. However even a single dose can precipitate a dystonia reaction and the patient may seek emergency care when such an acute attack occurs.

The presenting symptoms are chiefly of extrapyramidal nature and their acute onset can cause great alarm and anxiety for the patients. A Parkinsonian picture with pill-rolling movements, ataxia, tremors, stiffness and/or opisthotonus, is quite common. A "risus-sardonicus" facies — spasm of the masticating muscles and facial muscles simulating tetanus, can occur. The symptom complex of grimacing, chewing movements, facial muscle spasm, contraction, and abnormal protrusion of the tongue, dysarthria, chorea-athetoid movements, neck muscle spasm, opisthotonus, carpopedal spasm — is known as tardive dyskinesia (dystonia). A history of ingestion of any of the incriminating drugs helps to differentiate the dystonia syndrome from tics, tetanus, and Huntington's chorea.

Case Reports

A 15-year-old female was seen in the emergency room of Children's Hospital of Newark, with the sudden onset of abnormal protrusion of the tongue, difficulty in articulation, and phonation. She was very apprehensive and anxious. She received a single dose of prochlorperazine at a doctor's office the previous day for vomiting. She presented the typical acute tardive dyskinesia symptoms, with risus sardonicus facies, abnormal protrusion of the tongue, chewing movements, and carpopedal spasm. Acute dystonia related to prochlorperazine was diagnosed. Complete blood count, blood sugar, BUN, and serum calcium were normal. After treatment with 25 mg. of diphenhydramine (Benadryl[a]), intramuscularly, the symptoms were dramatically reversed in ten minutes.

Two teenagers were seen in the clinic fifteen minutes apart, sixteen hours after each had ingested two tablets of haloperidol which they had stolen from a neighbor. They took the tablets together to "get high." The presenting symptoms were abnormal protrusion of the tongue, involuntary chewing movements, neck stiffness, drooling of saliva, and difficulty in articulation. One had a severe reaction with opisthotonic spasm; it was necessary to support her head and neck with both arms. Diphenhydramine (25 mg.) was given parenterally and the symptoms were reversed in 8 to 10 minutes in each patient. In the patient most severely affected there was recurrence of mild dystonia 8 hours after the administration of diphenhydramine. A repeated dose of the drug gave complete recovery and no subsequent reactions occurred.

Discussion

The above cases demonstrate that an acute dystonia can occur with even a single dose of the offending drug and that diphenhydramine is effective in reversing the syndrome. In one case, though initial symptomatic relief was demonstrated, the drug had to be repeated.

Phenothiazines cause increased synthesis of dopamine and impaired reuptake and blockage of the dopaminergic receptors. The imbalance probably causes the dystonia and the extrapyramidal symptoms. These symptoms respond to anticholinergic medications. Diphenhydramine promptly aborts the symptoms.

Most iatrogenic dystonias occur in patients who are on prolonged medication and are usually seen in a psychiatric population. With the emergence of a dyskinetic attack, the offending drug should be stopped immediately, and diphenhydramine given for symptomatic relief. Although cessation of the offending drug relieves the dystonia it can persist longer in spite of appropriate management. This happens most frequently in patients who are on long-term psychotropic medications. In rare cases, the dystonia may persist after even a single dose.

Drugs[a] which cause dystonia include the following:

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*Dr. Menon is a Newark pediatrician associated with Children's Hospital there and currently serving in the United States Navy, Naval Hospital, Lemoore, California 93245.

[a]registered trade names in parenthesis

Prochlorperazine (Compazine,® Combid,® Eskatrol,® Stemetil®)
Trimeprazine (Temaril®)
Fluphenazine (Prolixin®)
Thiopropazate (Dartal®)
Pipamazine (Mornidine®)
Trifluoperazine (Stelazine®)
Triethyl perazine (Torecan®)
Acetophenazine Maleate (Tindal®)
Methidilazine (Tacaryl®)
Chlorpromazine (Thorazine,® Largactil®) — a prototype of phenothiazine which can cause dystonia.

Other medications which have the potential to cause extrapyramidal symptoms include reserpine, thioriazine (Mellaril®), and diphentoin (Dilantin®).

Butyrophenones which have actions similar to phenothiazines and haloperidol (haldol) are commonly prescribed drugs with dyskinesia-causing potential.

Besides the careful history of medication the clinical presentations and the routine laboratory studies, other tests which may be of value are the ferric chloride test[b] and phenostix examination of urine; these may assist in diagnosis but are not conclusive.

Extrapyramidal symptoms were found in about one percent of general medical patients treated with phenothiazine or the tricylic antidepressants. There is a suggestion that the tendency for the drugs to produce these symptoms is enhanced in persons with systemic lupus erythematosus or in persons taking prednisone.[c]

Conclusion

Where dystonia symptoms are encountered, it should be easy to identify the causative drug. When such a drug is ordered for a specific condition, an alternative drug may be used and the patient should be warned about further use of the offending drug. In a drug-induced dystonia, diphenhydramine may be used to reverse the alarming symptoms and to abate the anxiety of the patients. Because the symptomatology may be mistaken for tetanus, tics, and Huntington's chorea, initial management with diphenhydramine may be both diagnostic and curative, and is least harmful to the patient.

References

Kokjie OG: Acute dystonia due to phenothiazine. *Br Med J* 321:609, (December) 1972

Boston Collaborative Drug Surveillance Program: Drug-induced extrapyramidal symptom — a cooperative study. *JAMA* 224:482, (May) 1973

Lagos JC: Drug-induced extrapyramidal reactions — differential diagnosis. In: *Pediatric Neurology*. Boston, Little Brown, 1971.

Korczyn AD: Pathophysiology of drug-induced dyskinesias. *Neuropharm* 11:601, 1972

Barry D, Meyskens Jr FL, Becker CE: Phenothiazine poisoning: a review of 48 cases. *Calif Med* 118:1-5, 1973.

Modell W, Editor: *Drugs of Choice*. St. Louis, Mosby, 1975

[b]Ferric chloride reaction — 1 ml Fec 13 reagent in clean test tube with 5 cc of urine, shake well; observe color immediately, blue-purple suggests ingestion of phenothiazines (Ref: Johns Hopkins Hospital, *Harriet Lane Handbook*, edition 6)

[c]Boston Collaborative Drug Surveillance Program: Drug induced extrapyramidal symptoms: a cooperative study. *JAMA* 224:482, (May) 1974

1976 Golden Merit Award Ceremony

(Note change in date and time)

The 19th Annual Golden Merit Award Ceremony of The Medical Society of New Jersey will be held at 12 noon on Saturday, June 5, 1976, at the Cherry Hill Hyatt House, in conjunction with the 210th Annual Meeting. The membership is cordially invited. A list of the 1976 award recipients will appear in the May issue of *The Journal*, MSNJ.

ANNOUNCEMENTS

Pulmonary Disease Series

Following is a list of the monthly lectures in pulmonary diseases to be sponsored jointly by the Veterans Administration Hospital in East Orange and the New Jersey Medical School in Newark:

Feb. 18—Protease Inhibitors and Pulmonary Disease
Mar. 17—Pulmonary Cardiogenesis
Apr. 21—Categories of Pulmonary Disease Measured by Functional and Laboratory Data
May 12—Rehabilitation of Chronic Pulmonary Patient

All sessions will be held at 11:30 a.m. in the third-floor auditorium of the East Orange Veterans Administration Hospital. For additional information, please communicate with L. Fred Ayvazian, M.D., Chief of the Pulmonary Disease Section at the hospital.

Course in Emergency Medicine

The New Jersey Medical School, CMDNJ, announces a course in emergency medicine to be held on February 24, 26, and 27. The sessions will consist of lectures, panel discussions, and demonstrations, and will be presented from 9 a.m. to 4 p.m. each day in the third-floor auditorium of the nurses' residence of the Martland Hospital Unit, CMDNJ. There is no tuition but a $10 charge is made to cover the cost of three luncheons. Attendance will be awarded with sixteen credit hours in AMA category I. William Grant, M.D., Professor of Ophthalmology, is program director for the course. For registration and additional information, please communicate with him — 100 Bergen Street, Newark 07103, or telephone (201) 456-4658.

Programs on Dermatology

The New Jersey Dermatological Society has announced the following program schedule for 1975-1976:

March 9	Collagen Diseases and Vasculitis Irwin M. Braverman, M.D. Yale University School of Medicine
April 13	Clinical Pathological Conference Lewis Shapiro, M.D. Columbia University College of Physicians and Surgeons
May 11	Dinner Meeting (details to be announced later)

The meetings are held at 8 p.m. on the dates indicated — in March at Schering Corporation in Kenilworth; and in April at Johnson and Johnson in New Brunswick. For details please communicate with the Secretary of the New Jersey Dermatological Society, Robert M. Fischbein, M.D., 512 East Broad Street, Westfield 07090.

Thoracic Society Conference

On March 17, at the Coachman Inn, Cranford, an all-day joint conference of the New Jersey Thoracic Society, the medical arm of the American Lung Association of New Jersey, and the New Jersey Chapter of the American College of Chest Physicians will be held from 9 a.m. to 4 p.m. The morning session will be devoted to asthmatic conditions, and the afternoon program will be concerned with the respiratory effects of cardiac dysfunction. Luncheon will be available. For additional information, please communicate with the American Lung Association of New Jersey, 2441 Route 22 West, Union, New Jersey 07083.

American College of Surgeons Spring Session

The American College of Surgeons graduate education session for general and specialty surgeons will be held April 26 to 29 in Boston. The following formal courses will be offered:

Surgical Infections and Antibiotics
Endocrine and Hormone-Producing Tumors
Duodenal Ulcer Disease
The Cervical Spine: Injuries, Disc Lesions, and Spondylosis
Fluids, Electrolytes, and Acid-Base Balance
Hematologic Problems in Surgery
Thoracic Trauma and Pulmonary Insufficiency
Orthopedic Surgery — Hand Injuries, Ankle Injuries, and Back Pain

In addition there will be general lectures, panel discussions, and symposia on breast cancer, biliary tract surgery, and peripheral vascular disease, and a program on the federal government and the surgical profession. Registration is free for Fellows in good standing, ACS candidates, and surgical residents and interns. The fee for non-paid Fellows, applicants, and guests is $55. Non-Fellows in fulltime federal service may register for $30. The charge for each of the eight courses is $50. Fellows have already received official registration and hotel accommodation forms. Non-Fellows may request these from S. Frank Arado, American College of Surgeons, 55 East Erie Street, Chicago 60611.

Congress of Hypnosis and Psychosomatic Medicine

The International Congress of Hypnosis and Psychosomatic Medicine will meet in Philadelphia from July 1st through the 3rd at the Marriott Hotel. The Congress will be the central conference in a series of three consecutive bicentennial meetings sponsored by the University of Pennsylvania and the Institute of Pennsylvania Hospital from June 29 through July 4. Twelve workshops will be offered from June 26 to 29 in the use of hypnosis in medicine, psychotherapy, dentistry, and research. Additional workshops will be offered in the use of hypnosis with children, self-hypnosis and control of pain, as well as an introductory workshop for French-speaking colleagues. Participants are limited to physicians, psychologists, and dentists.

For registration and detailed descriptions of the workshops and the scientific meetings, please communicate with Martin T. Orne, M.D., 7th International Congress, 111 North 49th Street, Philadelphia 19139.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Feb.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

12 **Psychiatric Administrative Medicine**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

12 **Antibiotic Selection**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 **Cervical and Uterine Cancer**
1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 **Internal Medicine/Family Medicine Visiting**
26 **Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 **Advances in Immunology**
19 4-6 p.m. — Institute for Medical Research, Camden
26 *(Sponsored by Institute for Medical Research and AAFP)*

12 **Basic Sciences and Clinical Applications**
Burlington County Memorial Hospital, Mount Holly
(Sponsored by Burlington County Memorial Hospital and AAFP)

13 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

14 **Advances in Orthopedic Surgery**
21 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
28 School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

16 **1975-76 Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

16 **Endocrine Conferences**
23 11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

16 **Pediatric Happenings**
23 12:30 p.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

16 **Distinguished Lectures in Surgery**
23 4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

17 **Pacemakers**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital)

17 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

17 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 **Psychiatric Case Conferences**
24 7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

17 **Topics in Neurosurgery**
24 4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

17 **Tumor Conferences**
24 11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Hospital and Academy of Medicine)

18 **Advances in Management of Tuberculosis**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

18 **Annual Meeting — Diabetes Association**
7 p.m. — Forsgate Farms Country Club, Jamesburg
(Sponsored by American Diabetes Association [New Jersey Affiliate] and Academy of Medicine)

18 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital and Academy of Medicine)

18 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

18 **Protection of Ischemic Myocardium in Man**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

18 **Clinical Neurology — 1976**
25 11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

18 **Medical Lecture Series**
25 9-11 a.m. — Riverview Hospital, Red Bank
(Sponsored by Riverview Hospital and Academy of Medicine)

18 **Obesity — Fact and Fantasy**
25 **Abnormal Uterine Bleeding**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

18 **Medical Aspects of Aging Process**
25 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm. 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

18 **Cardiology**
25 10-11:30 a.m. — St. Michael's Medical Center, Newark
(Sponsored by St. Michael's Medical Center and Academy of Medicine)

18 **Conferences in Endocrinology**
25 3:30-5 p.m. — Location to be announced
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, Newark Beth Israel Medical Center, and Academy of Medicine)

18 **Perinatal Seminars**
25 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

18 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

19 **Recent Historical Changes in Psychiatry**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

19 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

20 **Pediatric Endocrinology**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

20 **Diabetes**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 **Pediatric Surgery**
9 a.m.-12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

21 **Annual Meeting — Psychiatric Association**
10 a.m.-1 p.m./8:30 p.m.-10 p.m. — Hyatt House, Cherry Hill
(Sponsored by New Jersey Psychiatric Association)

23 **Neuroscience Unit Conferences**
11:30 a.m.-12:30 p.m. — Bergen Pines Hospital, Paramus
(Sponsored by Bergen Pines Hospital and Academy of Medicine)

23 **Neurochemistry and Genetics of Mental Illness**
11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

24 **Terminability in Intensive Psychotherapy Cases**
8-10 p.m. — 6 West Walnut Avenue, Moorestown
(Sponsored by South Jersey Neuropsychiatric Association)

24 **Management of the High-Risk Neonate**
7-10 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

24 **Perinatology and Neonatology Seminar**
7 p.m. — Christ Hospital, Jersey City
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

24 **Proper Use of Endoscopy**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

24 **Peripheral Vascular Disease**
11 a.m. — Perth Amboy General Hospital
(Sponsored by Perth Amboy General Hospital and Academy of Medicine)

24 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 **Dysfunctional Uterine Bleeding**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

25 **Acupuncture**
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

25-27 **Emergency Medical Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

26 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 **Alcoholism Programs in Industry**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

26 **Cryptococcus**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

26 **Renal Angiography**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

27 **Cardiac Arrhythmias**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

28 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and VA Hospital)

Mar.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1 **Neuroscience Unit Conferences**
11:30 a.m.-12:30 p.m. — Bergen Pines Hospital, Paramus
(Sponsored by Bergen Pines Hospital and Academy of Medicine)

1, 8, 15, 22, 29 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

1 **Congestive Heart Failure**
1 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

1 **Medical-Legal Aspects of Medicine and Surgery**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

1, 8, 15, 22, 29 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

2, 9, 16, 23, 30 **Psychiatric Case Conferences**
7:30-9:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

2, 9, 16, 23, 30 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

2 **Medical-Legal Aspects of Medicine and Surgery**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

2, 9, 16, 23, 30 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

3, 10, 17, 24, 31 **Medical Aspects of Aging Process**
3-5 p.m. — CMDNJ-New Jersey Medical School, Rm. 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Diagnosis of the Anemic Patient**
1 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

3-31 **Perinatal Seminars (weekly)**
9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center)

3 **Conferences in Endocrinology**
10 3:30-5 p.m. — Location to be announced
17 *(Sponsored by CMDNJ-New Jersey Medical School,*
24 *VA Hospital, East Orange, Newark Beth Israel*
31 *Medical Center and Academy of Medicine)*

3 **Hormones in Office Gynecologic Practice**
10 **Risk Factors in Breast Cancer**
17 **Breast Problems Encountered in Office Practice**
24 **Epidemiology and Host Susceptibility Factors in Cancer**
31 **Office Dermatology**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

3 **Medical Lecture Series**
10 9-11 a.m. — Riverview Hospital, Red Bank
17 *(Sponsored by Riverview Hospital and*
24 *Academy of Medicine)*
31

3 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Cardiology Conferences**
17 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3 **Liver Surgery and Biopsy**
1-3 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Academy of Medicine and AAFP)

3 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Clinical Neurology — 1976**
10 11 a.m. — Alexian Brothers Hospital, Elizabeth
17 *(Sponsored by Neurological Associates and AAFP)*
24
31

4 **Thyroid Disease**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

4 **Basic Sciences and Clinical Applications**
11 Burlington County Memorial Hospital, Mt. Holly
18 *(Sponsored by Burlington County Memorial Hospital*
25 *and AAFP)*

4 **Topics in Oncology**
11 1:30-2:30 p.m. — Martland Medical Unit, Newark
18 *(Sponsored by CMDNJ-New Jersey Medical School*
25 *and Academy of Medicine)*

4 **Advances in Immunology**
11 4-6 p.m. — Institute for Medical Research, Camden
18 *(Sponsored by Institute for Medical Research*
25 *and AAFP)*

5 **Fall-Spring Psychiatric Lecture Series**
12 1:30-5 p.m. — Trenton Psychiatric Hospital
19 *(Sponsored by Trenton Psychiatric Hospital and*
26 *Academy of Medicine)*

5 **Fungal Infections**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

6 **Nuclear Medical Procedures in Surgery**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 **Advances in Orthopedic Surgery**
13 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
20 School, Newark
27 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

8 **Neurochemistry and Genetics of Mental Illness**
22 11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

9 **Carcinoma of the Endometrium**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

9 **New Developments in Scanning**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

9 **Headache**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

9 **Thyroid Diseases**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

9 **Collagen Diseases and Vasculitis — 1976**
Schering Corporation, Kenilworth
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

10 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey and Academy of Medicine)

10 **Cancer Teaching Day**
9:10 a.m.-4:30 p.m. — Englewood Hospital
(Sponsored by Englewood Hospital Association and Academy of Medicine)

10 **Anesthesia Conference**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

10 **Medical-Legal Aspects of Medicine and Surgery**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

10 **Cerebral Vascular Disease**
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

10 **Management of Advanced Cancer Patient**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

11 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

11 **Cardiomyopathies**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

11 **American Psychiatry — 2001 A.D.**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

12 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

12-15 **Revolutionary Trends in Medicine 1976**
Hyatt House, Cherry Hill
(New Jersey AFP Annual Convention)

12 **Headaches in Childhood**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Diversionary Urologic Surgery**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Proper Use of Antibiotics**
11:30 a.m. — Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine)

15 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

16 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

16 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

16 **Arthritis**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 **Clinical Immunology**
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

17 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

17 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

17 **The Right to Psychiatric Treatment**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

17 **Hypertension**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

17 **Perinatal Seminars**
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

18 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

18 **Clinical Applications of Biofeedback**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

19 **Antenatal and Prenatal Diagnosis of Congenital Defects**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

19 **Infertility**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

23 **New Developments in Scanning**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23 **Tumor Board Visiting Professor Series**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

23 **Perinatology and Neonatology Seminar**
7 p.m. — Holy Name Hospital, Teaneck
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

24 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

24 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

24 **The Limbic System; Behavior and Epilepsy**
VA Hospital — East Orange

(Sponsored by VA Hospital, East Orange, and Academy of Medicine)

25 **CA of the Lung**
7:15 p.m.-10:15 p.m. — Hospital Center of Orange
(Sponsored by Academy of Medicine and the Radiological Society of New Jersey)

25 **Hypertension**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 **Why Physical Fitness Programs Fail**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

26 **Arthritis**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

27-28 **17th Annual Postgraduate Anesthesia Seminar**
Cherry Hill Inn, Cherry Hill
(Sponsored by New Jersey State Society of Anesthesiologists and Academy of Medicine)

30 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

Apr.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Topics in Oncology**
1:30-2:30 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

1, 8, 15, 22, 29 **Basic Sciences and Clinical Applications**
Burlington County Memorial Hospital, Mt. Holly
(Sponsored by Burlington County Memorial Hospital and AAFP)

1 **Psychiatry**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

2, 9, 16, 23, 30 **Fall-Spring Psychiatric Lecture Series**
1:30-5 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

2 **Pre-Hospital Coronary Care**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

3, 10, 17, 24 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ-New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5, 12, 19, 26 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Medical-Legal Aspects of Medicine and Surgery**
1 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

5 **Current Chemotherapy of Malignant Disease**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

5, 12, 19, 26 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

5, 19 **Neurochemistry and Genetics of Mental Illness**
11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

6, 13, 20, 27 **Tumor Conferences**
11-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

6, 13, 20, 27 **Topics in Neurosurgery**
4-5:00 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

6, 13, 20, 27 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

6 **Comprehensive Review of Chemotherapy in Psychiatry**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

7, 14, 21, 28 **Medical Aspects of Aging Process**
3-5 p.m. — CMDNJ-New Jersey Medical School, Rm. 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

7, 14, 21, 28 **Perinatal Seminars**
9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

7 **Pathogenesis and Management of Uremia**
14 **Sensory Feedback in Neurological Disorders**
21 **Basic Principles of Behavior Therapy**
28 **Medical Aspects of the Psychiatric Consultation**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

7 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7, 14, 21, 28 **Conferences in Endocrinology**
3:30-5 p.m. — Location to be announced
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)

7, 21 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

7-9 **Emergency Medicine Conferences (Three Day Sessions)**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

7 **Neurology-Headache**
1-3 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Academy of Medicine, and AAFP)

7 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Monthly Meeting**
8-10 p.m. — Morristown Memorial Hospital
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)

8, 22 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

8 **Shock in Newborn**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

8 **Suicide**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

9 **Chronic Osteomyelitis in Childhood**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

9 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

9, 11 **Human Sexuality Seminar**
Cherry Hill Inn, Cherry Hill
(Sponsored by New Jersey Medical School, CMDNJ, Academy of Medicine and AAFP)

10 **Pharmacology of New Anesthetic Agents**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Clinical Endocrinology**
8 p.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

13 **Clinical Immunology**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

13 **Diabetes**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

13 **Clinical Pathological Conference**
8 p.m. — Johnson & Johnson, New Brunswick
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

14 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

14 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

15 **Renal Regulation of Sodium Excretion**
Somerset Hospital, Somerville
(Sponsored by Nephrology Society of New Jersey, N.J. RMP and Academy of Medicine)

15 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

15 **Breast Neoplasias — Part II**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

16 **Surgical Management of Ulcerative Colitis**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

17 **Monitoring of the High Risk Patient**
9 a.m. — St. Barnabas Hospital, Livingston
(Sponsored by St. Barnabas Hospital, Department of Surgery)

19 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

20 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

20 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

20 **Dermatology**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

21 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 **Treatment of Pain; Medical and Neurosurgical**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

21 **Thyroid Diseases**
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

21 **Geriatric Psychiatric Syndromes with Review of Chemotherapy**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

22 **The Middle Ear**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

22 **Therapy of Diabetes**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

22 **Modern Management of Pulmonary Tuberculosis**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

27 **Rape — Physician's Role**
8-10 p.m. — 151 Hillside Avenue, Englewood
(Sponsored by New Jersey Medical Women's Association and Academy of Medicine)

27 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

27 **Trauma-Outpatient Department**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 **Perinatology and Neonatology Seminar**
7 p.m. — Chilton Memorial Hospital, Pompton Plains
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

28 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

28 **Management of the Diabetes Patient**
9 a.m.-5 p.m. — Rutgers Medical School, Piscataway
(Sponsored by American Diabetes Association and AAFP)

30 **Diagnosis of the Anemic Patient**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

May

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3, 10, 17, 24 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Anesthesiology**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

3, 10, 17, 24 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

4, 11, 18, 25 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

4 **New Developments in Scanning**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

4, 11, 18, 25 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

4, 11, 19, 25 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

5 **Biochemistry of Mental Disorder**
8 a.m.-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

5 **Renal Tubular Dysfunction**
12 **Intestinal Absorption and Malabsorption**
19 **The Future of Allergy**
26 **Office Use of Antibiotics**
9:00-11:00 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

5 **Conferences in Endocrinology**
12 3:30-5 p.m. — Location to be announced
19 *(Sponsored by CMDNJ-New Jersey Medical School,*
26 *VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

5 **Clinical Neurology — 1976**
12 11 a.m. — Alexian Brothers Hospital, Elizabeth
19 *(Sponsored by Neurological Associates and AAFP)*
26

5 **Perinatal Seminars**
12 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
19 *(Sponsored by Newark Beth Israel Medical Center)*

5 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Cardiology Conferences**
19 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Peripheral Vascular Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Jersey City)

6 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 **Topics in Oncology**
13 1:30-2:30 p.m. — Martland Hospital, Newark
20 *(Sponsored by CMDNJ-New Jersey Medical School*
27 *and Academy of Medicine)*

6 **Basic Sciences and Clinical Applications**
13 Burlington County Memorial Hospital, Mt. Holly
20 *(Sponsored by Burlington County Memorial Hospital and AAFP)*

7 **Fiberoptic Bronchoscopy**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

11 **Arthritis**
[illegible] — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

11 **Emergency Medicine**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

11 **Laboratory Interpretations**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

11 **Arthritis**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

12 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Office Treatment of Depression**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

12 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

12 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

12 **Chronic Renal Failure**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

13-15 **Rational Drug Therapy in Cardiovascular Disease, II**
9 a.m.-5 p.m. — Nassau Inn, Princeton
(Sponsored by American College of Cardiology and AAFP)

13 **Liver Disease and Ascites**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

13 **Management of Hyperlipidemias**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Genetics**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Inflammatory Bowel Disease**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

17 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

18 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

18 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 **Headache**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

18 **Drug Addiction**
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

19 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

19 **Diabetes Mellitus**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

19 **Perinatal Seminars**
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center, Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

19 **New Developments in Scanning**
Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

19-21 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

20 **Radiology**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

20 **Postgraduate Symposia in Surgery**
West Jersey Hosital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

20 **Does Psychiatry Exist?**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

21 **Management of Hepatitis**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 **Management of End-Stage Renal Disease**
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 **Abnormalities in Growth Patterns in Childhood and Adolescence**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 **Drug Addiction**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

25 **Perinatology and Neonatology Seminar**
7 p.m. — Saddle Brook General Hospital
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

26 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 **Annual Awards Dinner — AMNJ**
6:30 p.m. — The Chanticler, Millburn
(Sponsored by Academy of Medicine)

26 **Child Abuse Revisited**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

27 **In Vitro Studies of Erythropoiesis**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

27 **Pulmonary Embolism**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

28 **Thyroid Diseases**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

June

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

1, 8, 15, 22, 29 **Psychiatric Case Conferences**
7:30-9:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

1, 8, 15, 22, 29 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

2 **Computerized Axial Tomography**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

2 **Obstructive Lung Disease**
1:00 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

2 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

2 **Cardiology Conferences**
16 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3 **Topics in Oncology**
10 1:30-2:30 p.m. — Martland Medical Unit, Newark
17 *(Sponsored by CMDNJ-New Jersey Medical School*
24 *and Academy of Medicine)*

3 **Gynecological Laparoscopy**
4 9 a.m.-5 p.m. — First Day
8 a.m.-3 p.m. — Second Day, Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

4-8 **MSNJ Annual Meeting**
Cherry Hill Hyatt House
Cherry Hill

4 **Fluid and Electrolyte Imbalance**
8:30 a.m. — United Hospitals of Newark
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Advances in Orthopedic Surgery**
12 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
19 School, Newark
26 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

7 **Thyroid Diseases**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

7 **Endocrine Conferences**
14 11 a.m. — Elizabeth General Hospital, Elizabeth
21 *(Sponsored by Elizabeth General Hospital and AAFP)*
28

8 **Tuberculosis**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

8 **Trauma and the Emergency Department**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

8 **Acute Renal Failure**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Nephrology Society of New Jersey, N. J. RMP and Academy of Medicine)

9 **Thanatology**
[illegible] p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

9 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Antibiotics and Surgical Infection**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 **Infertility**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 **Update on Psychotropic Drugs**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

16 **Laboratory Interpretations**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

18 **Orthopedic Problems**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

18 **Photographic Panorama of Pediatric Problems**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

21 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital)

22 **Perinatology and Neonatology Seminar**
7 p.m. — Somerset Hospital, Somerville
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

22 **Management of Hypertension**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23-25 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

OBITUARIES

Dr. Abram B. Abrams

Word has just been received of the death on June 9, 1975, of Abram B. Abrams, M.D., in Palm Beach, Florida. A native of New Jersey, Dr. Abrams was graduated from the University of Pennsylvania School of Medicine in 1916 and practiced surgery in Newark and later in Maplewood until retirement to Florida in 1972. He had been associated with the Presbyterian and Beth Israel Hospitals in Newark and with the St. Barnabas Medical Center in Livingston. He was a Fellow of the American College of Surgeons and of the International College of Surgeons, and a member of the New Jersey Society of Surgeons and of the American Society of Abdominal Surgeons. He had also held membership in the Academy of Medicine of New Jersey. Dr. Abrams was 82 years old at the time of his death.

Dr. Sylvia A. Ficke

Sylvia A. Ficke, M.D., a member of our Sussex County component, died on December 2, 1975. Born in 1909 and a graduate of the Yale University School of Medicine in 1934, Dr. Ficke practiced general medicine in Jersey City for several years before relocating to Vernon in Sussex County. In recent years she had limited her practice to pediatrics and was associated with the Franklin Hospital in Franklin and the Alexander Linn Hospital in Sussex. Formerly she had been associated with Jersey City Medical Center, and with Margaret Hague and St. Francis Hospitals in Jersey City. Dr. Ficke was a member of the American Academy of Family Practice.

Dr. Morton M. Kessler

At the untimely age of 56, Morton M. Kessler, M.D., died on November 30, 1975, at the West Hudson Hospital in Kearny. A graduate of New York Medical College in 1945, Dr. Kessler began his career as an industrial physician with the DuPont Company in Kearny and subsequently entered private surgical practice in North Arlington, where he maintained offices for over 27 years. He was on the staff at West Hudson Hospital in Kearny, Newark Beth Israel, Passaic General, and Hasbrouck Heights Hospital, and the Clara Maass Hospital in Belleville. Dr. Kessler served as police surgeon for North Arlington for twenty years. He was a member of the American Society of Abdominal Surgeons and of the American Association of Occupational Medicine, and was a Fellow of the Academy of Medicine of New Jersey.

Dr. David Rubin

One of Union County's senior members, David Rubin, M.D., died on November 28, 1975. Born in 1904, and a graduate of the University of Louisville College of Medicine in 1937, Dr. Rubin practiced ophthalmology in Elizabeth for many years. He was affiliated with St. Elizabeth's and Alexian Brothers Hospitals in Elizabeth, and was a member of the American and New Jersey Associations of Ophthalmologists and Otolaryngologists.

Dr. George F. Simms

George F. Simms, M.D., a member of our Essex County component, died on November 29, 1975, at the Saint Barnabas Medical Center in Livingston. A native of New Jersey and a graduate of New York University Medical School, class of 1927, Dr. Simms practiced in Lyndhurst for 43 years before retiring in 1973 to Saylorsburg, Pennsylvania. He was a general surgeon and had been on the staff at St. Barnabas Medical Center in Livingston and at Presbyterian Hospital in Newark. He was a member of the American College of Gastroenterology and of the American Academy of Family Practice. Dr. Simms was 73 years old at the time of his death.

Dr. Eleanor A. Webb

One of Union County's retired members, Eleanor A. Webb, M.D., formerly of New Providence, died on November 11, 1975. Born in 1905 and graduated from Cornell University Medical School, class of 1933, Dr. Webb practiced general medicine and pediatrics until retirement in 1968 to Amagansett, New York. She had been on the staff at the Overlook Hospital in Summit.

210th Annual Meeting
June 4 - 8
Cherry Hill Hyatt House

Aerial View of Site

When **impotence** due to

androgenic deficiency

DESCRIPTION: Methyltestosterone is 17β-Hydroxy- Methylandrost-4-en-3-one. **ACTIONS:** Methyltestoster is an oil soluble androgenic hormone. **INDICATIONS:** In male: 1. Eunuchoidism and eunichism. 2. Male climact symptoms when these are secondary to androgen d ciency. 3. Impotence due to androgenic deficiency. 4. P puberal cryptorchidism with evidence of hypogonadi Cholestatic hepatitis with jaundice and altered liver func tests, such as increased BSP retention, and rises in SG levels, have been reported after Methyltestosterone. Th changes appear to be related to dosage of the drug. Th fore, in the presence of any changes in liver function te drug should be discontinued. **PRECAUTIONS:** Prolon dosage of androgen may result in sodium and fluid retent This may present a problem, especially in patients with c promised cardiac reserve or renal disease. In treating m for symptoms of climacteric, avoid stimulation to the poi increasing the nervous, mental, and physicel activi beyond the patient's cardiovascular capac **CONTRAINDICATIONS:** Contraindicated in persons known or suspected carcinoma of the prostate and in cinoma of the male breast. Contraindicated in the prese of severe liver damage. **WARNINGS:** If priapism or o signs of excessive sexual stimulation develop, disconti therapy. In the male, prolonged administration or exces dosage may cause inhibition of testicular function, with re tant oligospermia and decrease in ejaculatory volume. cautiously in young boys to avoid premature epiphy closure or precocious sexual development. Hypersensit and gynecomastia may occur rarely. PBI may be decree in patients taking androgens. Hypercalcemia mey o particularly during therapy for metastatic breast carcino If this occurs, the drug should be discontinued. **ADVER REACTIONS:** Cholestatic jaundice • Oligospermia and creased ejaculatory volume • Hypercalcemia particular patients with metastatic breast carcinoma. This usually cates progression of bone metastases • Sodium and w retention • Priapism • Vinilization in female patients • Hy sensitivity and gynecomastia. **DOSAGE A ADMINISTRATION:** Dosage must be strictly individuali as patients vary widely in requirements. Daily requirem are best administered in divided doses. The followin suggested as an average daily dosage guide. **In the m** Eunuchoidism and eunuchism, 10 to 40 mg.; Male cli teric symptoms and impotence due to androgen deficie 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **H SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250.

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BOOK REVIEWS

Review of Physiological Chemistry. 15th Edition. H. A. Harper, Ph.D. Los Altos, California, Lange, 1975. Pp. 570. Illustrated ($10.50)

The fifteenth edition of the Review represents a skillfully updated version of what is by now an almost classic series of biochemical compendia. Unlike many books subjected to repeated cycles of revision, this review emerges as a well-integrated and efficiently organized survey of biochemistry. While the book is suitable for those readers seeking to gain an introduction to the subject, it appears particularly useful for those reviewing in preparation for state and specialty board examinations. The high density of factual information of text is made manageable by frequent use of topic and subtopic titles. There are a number of excellent tables and figures which effectively summarize the chemistry and metabolism of the cell. The text is reasonably up to date although certain areas (*e. g.*, biosynthesis of nucleic acids) appear in a rather abbreviated and somewhat dated form. The text contains a number of literature citations, allowing the interested reader selectively to consult original publications. These references could be improved, however, through some judicious editing and by including more citations of recent publications.

Richard A. Harvey, Ph.D.

Medical Research: A Statistical and Epidemiological Approach. J. M. England. Edinburgh, Churchill Livingstone, 1975. Pp. 190. Illustrated. (price not given)

We seem to be at a time when statistical analyses have gotten so complex and sophisticated that computers are required to analyze the data. The texts that are available are frequently so oriented to theory that many readers are disheartened by the mathematical knowledge needed. It is refreshing, therefore, to find a monograph as straightforward and immediately useful as this one. The author has sought to provide an appropriate blend of statistics and epidemiology and to indicate the processes that should be applied in the planning of clinical investigations. There is an initial brief review of the elementary aspects of statistics including a discussion of different types of distributions. Considerable attention is given to planning a clinical investigation with particular emphasis on setting up the hypothesis to be tested, on the selection of subjects (age, sex, occupation, controls) and most importantly on the number of subjects to be studied. Here an outline of sequential analysis is provided. Techniques of analyzing the results obtained are presented (proportions, correlations, regressions, tests of significance). A brief section on epidemiology concludes the text. There is a limited but carefully selected bibliography and a set of appendices on the details of calculations of various tests.

The author has been quite successful in his attempt. This small, concise text is clearly written and to the point. It is recommended for those who would like to gain some insight into the analysis of clinical trials and for those who might want to embark on some limited trials themselves, with no more computer equipment than will fit into a pocket.

Francis P. Chinard, M.D.

Creative Talent To Be Exhibited at Annual Meeting

It is the intention of the Committee for the 210th Annual Meeting of The Medical Society of New Jersey to make this meeting entertaining as well as productive. With this in mind, the Committee is preparing an original talent show, whereby the membership can exhibit their creative works or hobbies.

"All work and no play makes Jack a dull boy" — if you have unusual hobbies share them with your colleagues.

There will be an application form in the February issue of the *Membership Newsletter*. An early response to that announcement will be appreciated. Last year's show indicated that there is a wealth of talent out there — why not join us in displaying your hobbies.

Should you wish to participate, please write to Martin E. Johnson, Executive Assistant, The Medical Society of New Jersey, P.O. Box 904, Trenton 08605, and give a brief description of material to be displayed. Suitable arrangements will be made available and all potential participants notified prior to the meeting which will be held at the Cherry Hill Hyatt House, Route 70 and Cuthbert Boulevard, Cherry Hill, June 5 through June 8.

Two-Day Institute

The New Jersey Occupotionol Theropy Assaciation and Blythedale Childrens Hospitol, Volhollo, New York ore sponsoring o 2 doy Institute on SENSORY INTEGRATIVE DYSFUNCTION AND LEARNING DISORDERS: THEORY AND TREATMENT presented by A. JEAN AYRES, Ph.D., O.T.R. The pragram is March 15, 16, 1976 ond the fee is $50.00 for Prafessionols; $40.00 for Students. For further informotion and an opplicotion cantoct: Nancy Jocobs, Workshap Caordinatar, 783 Mt. Praspect Ave., Nework, New Jersey, 07104.

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CLASSIFIED ADVERTISEMENTS

CARDIOLOGIST—Available July 1976: 33, abim, university trained in all inv. and non-inv. techniques. Desires position in Philadelphia Camden area. Write Box No. 148, c/o THE JOURNAL.

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INTERNIST/CARDIOLOGIST—Desires associateship, partnership, solo or salaried job. Board eligible, available July 1976. M. Rashid, M.D., 223 Prospect Street, East Orange, New Jersey 07017.

INTERNIST/GASTROENTEROLOGY—Seeking group, partnership or hospital based practice, board eligible, available July 1976. N. Rana, M.D., 230 Fairhaven Drive, Jericho, New York 11753.

PULMONARY INTERNIST—Desires solo, group, hospital based practice in New Jersey. Little experience in fiberoptic-bronchoscopy. Available July 1976. Write Box No. 151, c/o THE JOURNAL.

PEDIATRICIAN—Wishes to purchase existing pediatric practice or rent space for pediatric practice in medical building. Certified. Write Box 145, c/o THE JOURNAL.

PHYSICIAN—Part-time for work in private industrial practice. Mornings or afternoons, weekdays only. Surgical experience preferred. Call evenings (201) 467-0333.

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EQUIPMENT—For sale, full ophthalmic exam set including phoropter, slit lamp, trial lenses, hand tools, exam chair, keratometer, autoplot. Write Box 851, Breton Woods, New Jersey.

HOME-OFFICE—For Sale, Cherry Hill, prime neighborhood, ideal for family practice, 750 square feet office, 4 bedrooms with 2½ baths (home), $98,500. Write Box No. 149, c/o THE JOURNAL.

DOCTOR'S OFFICE/RESIDENCE—Summit, fine convenient location. $59,500. Owner, Darmara, 76 South Terrace, Short Hills, New Jersey 07078 or telephone (201) 379-2379.

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Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. WORD COUNT: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. COPY DEADLINE: Fifth of preceding month.

PERSONNEL NEEDS SEE PAGES 198 AND 200

CONTINUING EDUCATION OPPORTUNITIES

SEE PAGES 113, 122, 198

PERSONNEL NEEDS

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CONTINUING EDUCATION OPPORTUNITIES

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Alternatives in Health Care
D. Malafronte, et al.

Rhabdomyosarcoma of Bladder in Children
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1. Russek HI: AM J M Sc 239:478, 1960

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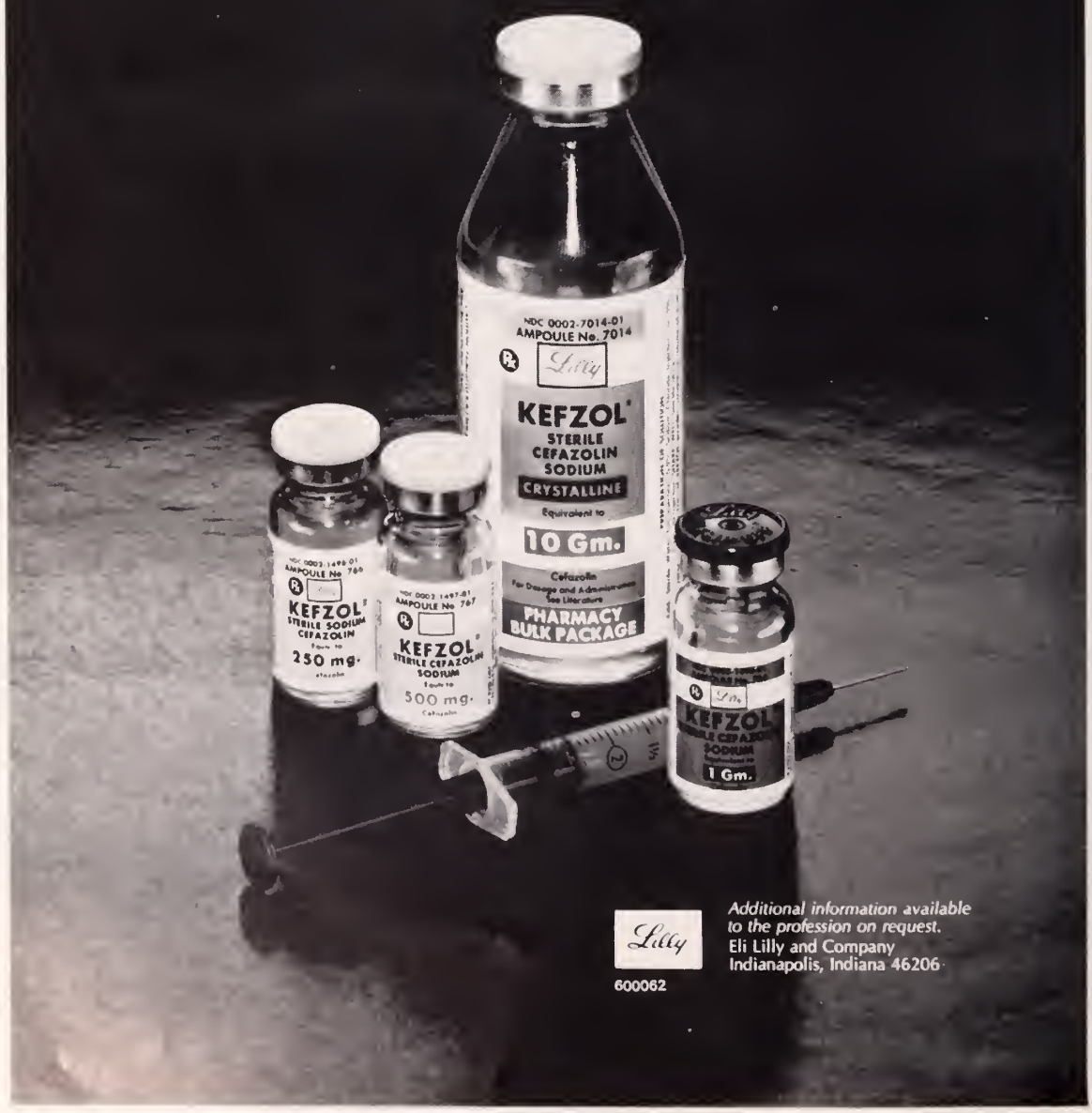

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EDITORIALS

Relationship Between Quality and Cost of Medical Care

If one wonders about hospital costs for patients under the care of family practitioners, specialists, and superspecialists, one might assume that there is a direct relationship between the degree of the physician's training (ergo, the quality of care) and the cost of hospital service. Thus one might guess that hospital costs for a patient with myocardial infarction would be highest under the care of a cardiologist, next highest under an internist, and least under the family practitioner. Right? Wrong!

In a recent study at the Medical College of Ohio, Department of Community Medicine,[1] the records of 4,908 patients of 42 family physicians, 5,430 patients of 31 internists, and 1,085 patients with diseases of the cardiovascular system treated by six cardiologists, during a two-year period in a short-term community hospital, were analyzed. In brief, the results were as follows:

1. Internists kept their patients in the hospital longer (11.6 days average) than family physicians (10.2 days average).

2. Average total cost was higher for internists ($1,481) as compared to family physicians ($1,238). These costs were higher because of longer hospitalization, but also because of higher "other costs" (i.e., x-ray, laboratory work, and electrocardiograms).

3. In terms of cardiovascular diseases, specifically myocardial infarction, the length of stay and the cost per patient for the cardiologists was *lower* than those for the primary care physicians. The same was true for essential hypertension.

The data were analyzed for multiplicity of diagnosis and surgery (a measure of complexity of the case) and there was no difference between the patients of family physicians and internists. Furthermore, 96 percent of the patients with myocardial infarction under the care of the cardiologists had other complicating diseases as compared to 70 percent for the primary physicians. Hence, the cardiologists were managing more complicated cases.

These differences were not explained by differences in patient characteristics (age, sex) or insurance category (Blue Cross, Medicare, Medicaid, or private insurance).

What does a study like this show? The reader can draw his own conclusions. The least it suggests is that secondary and tertiary care physicians are not necessarily the highest "generators of cost" in your hospital. It also implies that a greater awareness of cost need not result in a loss of quality.[2] A.K.

References

[1]Garg ML, Mulligan JL, McNamara MJ, Skipper JK, and Parekh RR: Teaching students the relationship between quality and cost of medical care. *J Med Ed* 50:1085–1091, (December) 1975.

[2]Egdahl RH: Foundations for medical care. *N Engl J Med* 288:491–498, 1973.

Challenges of the Day

The Medical Society of New Jersey is addressing itself to many of the challenges of the day in a more vigorous manner than it did a few years ago, yet more must be done. Top priority items include legislation, professional liability, continuing medical education, public relations and the profession's public image, as well as the Society's involvement with various departments of state government, with other health organizations, with county and other state medical societies, with the AMA, and with medical schools.

Our participation in these matters is of paramount importance. Our input and impact must be felt. To undertake the gigantic task of serving both the profession and the public requires the full cooperation of every physician in the state, by responding when called upon and by providing financial support.

History well documents the "too little and too late" syndrome which has brought peoples and nations to their knees. It is time to stop "letting the other guy do it" and get involved ourselves. There is still opportunity for us to accomplish

what must be done, not through confusion but through cooperation and coordination.

In this bicentennial year, let us remember that 200 years ago Americans banded together against a common foe and, although outnumbered and facing great odds, they won.

Can we respond equally well to the challenges of the day?

James A. Rogers, M.D.

Mycobacterium Leprae Cultured

Our busy lives are so overrun with petty and not-so-petty details that we sometimes miss the news of an event which the medical world has awaited for millenia. Did you know that the leprosy bacillus has been cultured in the laboratory for the first time in history?

The unmistakable and unequivocal signs of leprosy were discovered in the hands and feet of an Egyptian mummy from the sixth century A.D., while Chinese priests in the Shang period (1523-1028 B.C.) described afflictions which were consistent with leprosy.[1] Despite this knowledge, the leprosy bacillus, which was first identified 102 years ago by Norwegian scientist Gerhard Aarmauer Hansen, could be grown only in the footpads of mice and armadillos.

In 1975, Dr. Olaf Skinsnes, professor of pathology at the University of Hawaii, and director of the American Leprosy Missions Atelier at the university, made the announcement. What was the key to success? Hyaluronic acid! The Atelier staff discovered that hyaluronic acid, one of the acid mucopolysaccharides, is a major nutrient for the bacilli of leprosy. This sugar, which is the cement substance of the tissues, was used as the base for the culture medium on which mycobacterium leprae thrived.

Six strains of leprosy bacilli cultured from lepromatous patients were demonstrated to be "the real thing" by an immunofluorescent antibody-antigen identification procedure.

Another shocking theoretical possibility, according to Skinsnes, is that his "laboratory can produce in a few months more living leprosy bacilli than exist in the whole world, including all its leprosy sufferers."[2] A.K.

---

[1]Thorward J: *Science and Secrets of Early Medicine.* New York, Harcourt, Brace, and World, Inc., 1963.

[2]*U.S. Medicine,* Vol. II, No. 23, December 1, 1975.

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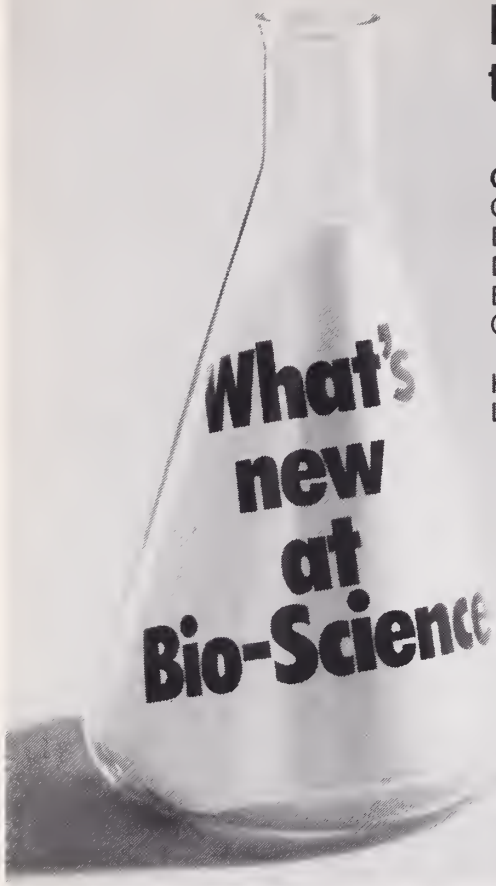

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ORIGINAL ARTICLES

Parenthood is unusual in renal failure. Successful kidney transplant restores sexual function within six months. Three of 25 females and 9 of 45 males with functioning kidney transplant and no barrier to becoming parents were studied. One pregnancy in a kidney recipient and 3 pregnancies in wives of recipients occurred. One of the wives requested voluntary abortion. Three babies were born with no anomalies and are growing normally. In worldwide review no increase in anomalies is found in these babies due to immuno-suppressive medications.

Parenthood in Recipients of Kidney Transplants

Hossein Eslami, M.D., Seymour Ribot, M.D. and Paul Pedowitz, M.D.
Newark*

An evaluation of the quality of life of kidney transplant recipients has not been studied thoroughly, except for early studies of Sadler and his associates.[1] It is hoped that in a matter of a few years some useful data will be available. Resumption of sexual activity, reproductive function, and parenthood are relevant yardsticks for such an evaluation. The purpose of this article is to study parenthood in recipients of successful kidney transplantation at Newark Beth Israel Medical Center.

Material and Method

Forty-five males and twenty-five females with functioning kidney transplants were reviewed. Kidney function was graded as follows: excellent — stable function, serum creatinine below 1.5 mg/100 ml; good — stable function, serum creatinine of 1.5-2 mg/100 ml; fair — stable function, serum creatinine of 2-4 mg/100 ml; poor — serum creatinine above 4 mg/100 ml. The grading of kidney function and types of transplant (related living donor or cadaver) are shown in table 1.

Although the majority of recipients are young and theoretically capable of becoming a parent, we have excluded individuals who for social, anatomical, and physiological reasons are not desirous or capable of reproduction as shown in table 2 for males and table 3 for females. Thirty-six of forty-five males and twenty-two of twenty-five females were excluded for reasons indicated.

Table 1

Grading of kidney function in recipients of kidney transplant from related living (RLD) & cadaver donor (CD)

	Male (45)		*Female* (25)	
Grade	*RLD	**CD	RLD	CD
Excellent	7	7	12	3
Good	6	17	1	8
Fair	0	5	0	1
Poor	1	2	0	0

*Related Living Donor
**Cadaver Donor

Therefore, there were only nine males and three females who had no social and medical barrier to becoming a parent. The grading of function of kidney transplant and type of transplant in these individuals is shown in table 4.

In this series one of the females became pregnant and delivered a normal baby at term; two of the males were responsible for three pregnancies of their wives. The woman with two pregnancies had a voluntary abortion of her first pregnancy because of anxiety and fear of anomalies in the baby. Her second pregnancy resulted in the delivery of a normal full-term baby. All three babies are normal, and show a normal rate of growth. The parenthood in these patients is summarized in table 5.

* This work is from the Departments of Organ Transplantation, Nephrology, and Obstetrics, Newark Beth Israel Medical Center, and the New Jersey College of Medicine, CMDNJ, Newark. Contributing authors include also D.K. Brief, M.D., J. Alpert, M.D., B.J. Brener, M.D. M.H. Cohen, M.D., B. Strauss, M.D., H.J. Frankel, M.D., B.W. Lefkon, M.D., M.V. Goldblat, M.D., and V. Parsonnet, M.D. Reprint requests may be sent to H. Eslami, M.D., Department of Organ Transplantation, Newark Beth Israel Hospital, 201 Lyons Avenue, Newark 07112.

Table 2

Reasons for exclusion of 36 of 45 male recipients of kidney transplant to become a parent.

Reason	*No.*
Not married or too young	16
Practice contraception	11
Wife menopausal	4
Wife had hysterectomy	2
Prostatectomy	2
Less than 6 months post transplant	1
Total	36

Table 3

Reasons for exclusion of 22 of 25 female recipients of kidney transplant to become a parent

Reason	*No.*
Not married or too young	9
Practice contraception	4
Hysterectomy	2
Tubal obstruction	1
Less than 6 months post transplant	6
Total	22

Table 4

Functional grade and type of kidney transplant in patients with no barrier to becoming a parent.

	Male (9)		*Female* (3)	
Grade	*RLD	**CD	RLD	CD
Excellent	1	2	1	2
Good	1	3	0	0
Fair	0	2	0	0
Poor	0	0	0	0

*Related Living Donor
**Cadaver Donor

Table 5

Results of parenthood in recipients of kidney transplantation

Patient	*Sex*	*Donor Type*	*Time Since Transplant*	*Result*	*Anomalies in Baby*
1	F	RLD	28 Ms.	ND	None
2	M	RLD	40 Ms.	ND	None
3	M	CD	14 Ms.	Vol. Abort.	
3	M	CD	31 Ms.	ND	None

Case Presentation

Case one was a female, born October 23, 1946. At age eleven she developed chronic glomerulonephritis, and at age 22 peritoneal dialysis became necessary. A month later she was started on hemodialysis, but tolerated it poorly. She developed intractible ascites that did not respond to hemodialysis.

On June 22, 1970, she received a kidney transplant from her mother. After a rather stormy post-operative course, during which a lymphocele of the iliac fossa had to be evacuated and a urine leak from the bladder had to be managed by catheter drainage, she recovered and was discharged from the hospital with excellent kidney function.

On October 14, 1972, twenty-six months after the kidney transplantation, she married and became pregnant (twenty-eight months post transplant). The course of the pregnancy was uneventful. No decline of kidney function occurred. Serum creatinine during her pregnancy ranged between 1.2 and 1.4 mg/100 ml. The blood pressure was 130/80 mm Hg without medication.

Immunosuppressive medications consisted of 150 mg azathioprine and 10 mg of prednisone daily, the same as before the pregnancy. Combined pelvimetry and IVP at term (Figure) indicated good kidney function and no obstruction to engagement of the baby's head. On October 20, 1973 she was delivered of a baby boy, weighing 3500 gm with an Apgar rating of 8. A complete examination of the baby showed no anomalies. There was no sign of depression of adrenal or hematopoietic function in the baby. Subsequent growth rate was normal. There was no change in mother's kidney function during the pregnancy and postpartum period.

Combined pelvimetry and IVP shows fetal head engaged, well functioning kidney not obstructing pelvic inlet.

Discussion

The lack of libido, male impotence, and amenorrhea in the female are common occurrences in patients with end-stage renal disease on dialysis. After successful renal transplantation the return of sexual activity in males usually occurs within a few weeks; in most females, in the proper age group, the beginning or return of menstruation will occur within six months.[2]

The first report of a successful pregnancy in a recipient of kidney transplant was by Murray, *et al.*, in 1963. The patient received an isograft from her twin sister.[3] Board, *et al.*, in 1967, reported the first successful pregnancy in a recipient of a related living donor receiving

azathioprine and prednisone.[4] Caplan, *et al.* reported pregnancy in a recipient of cadaver kidney transplant in 1970.[5] The twelfth report of the human renal transplant registry[6] indicates parenthood in 64 women and 68 men. Rifle and Traeger[7] recently reported 120 pregnancies in 103 women in a world wide survey; three of the patients were pregnant at the time of their report.

It seems that the rate of parenthood in recipients of kidney transplant is below the average as compared to the general population. The presumed reason for this is extreme caution practiced by both patients and their physicians, although many kidney transplant recipients are either too young to become a parent or are unmarried (tables 3 and 4).

In Rifle and Traeger's report,[7] of forty-two pregnancies with complete data, 22 or 54 percent were delivered by caesarean section and 20 or 46 percent were delivered normally without difficulty. The reason for caesarean section was obstetrical in 60 percent of the cases. In only two cases was caesarean section indicated because combined pelvimetry and pyelography showed the transplanted kidney to be an obstacle to fetal engagement.

It is generally agreed that female patients in the child-bearing age should be advised to avoid pregnancy for a period of one to two years; even then they should proceed only if they are extremely anxious to have children and kidney function is satisfactory. In recipients of cadaver kidney transplant, an arbitrary waiting period of two years seems even more advisable to assure the stability of kidney function. Repeated pregnancies should be discouraged.

So far there is no reason to discourage the male recipients of a kidney transplant from becoming a father. To allay their fears, the patient and his spouse should be reassured and informed of the lack of evidence of an increased rate of anomalies in babies born to the recipients of kidney transplantation taking azathioprine and prednisone.

During pregnancy, the patient should be under close observation, but increase in proteinuria or a mild rise in the blood pressure are not indications to terminate pregnancy. At term, combined pelvimetry and intravenous pyelograms should be performed to demonstrate the relationship of the kidney and the fetal head. If there is no obstruction to normal progress of fetal engagement every effort should be made to have a normal delivery. Whenever there is a rapid decline in kidney function or obstruction of the pelvic inlet by the transplanted kidney, caesarean section is indicated.

According to Penn[8] pregnancies occurred between eight and a half and 59 months after transplantation for an average of 30.8 months. In the case here reported pregnancy occurred 28 months after transplantation.

Abortions have been spontaneous, therapeutic, or voluntary. Spontaneous abortion usually occurs if kidney function is sub-optimal. Of 117 pregnancies in women with kidney transplants, Rifle[7] reported nine spontaneous abortions within the fourth and twenty-second week of gestation (7.7 percent). Three (2.7 percent) were therapeutic to preserve declining kidney function and nineteen (16.2 percent) were performed voluntarily, usually because of fear of fetal abnormality. To our knowledge the rate and the reasons for abortion in wives of transplant recipients has not been studied. In our series a voluntary abortion was done in one such individual because of fear of possible anomalies in the baby.

Intrauterine growth retardation of the fetus has been reported to occur frequently.[7] This has been attributed to sub-optimal kidney function, in some pregnant women, to hypertension, but more likely to the low titer of estrogens following treatment with corticosteroids and azathioprine.[2-7]

Teratogenic effect of immunosuppressive drugs, documented in animals, has been of great interest to investigators.[9] Jensen[10] has shown that there may be chromosomal anomalies in the patients treated with azathioprine. The study of Rifel and Traeger,[7] however, did not show increased teratogenicity in the offspring.

At the time of pregnancy most patients are on low doses of immunosuppressive drugs, and the same dose is usually continued throughout the

gestation. A few authors increase the dose of steroids before delivery. On the other hand a number of investigators have decreased the amount of immunosuppressive drugs during pregnancy. This suggestion is based on the observation that allografts are tolerated better in pregnant women and animals.[11-14] Atrophy of the thymus during pregnancy, secretion of corticosteroids by the fetus, and non-specific immunosuppressive effect of progesterone, estrogen, and chorionic gonadotropin have been indicated as the reason for better tolerance of the grafts. Hellstrom [12] believes that the presence of blocking or enhancing factors in the maternal placenta account for this phenomenon.

Decline of kidney function during the pregnancy is a major concern. The increase in glomerular filtration rate during the third trimester, which is usually present in the normal kidney, is not seen in the transplanted kidney.[7] In thirty-four women with normal kidney function before pregnancy, Rifle[7] reported two patients whose kidney function declined during the pregnancy and failed to return to normal after delivery.

Increase in blood pressure was noted in eleven of forty-two cases. In two of them the blood pressure had been elevated before pregnancy. In all but one the blood pressure returned to normal after delivery.[7]

In most reports the condition of the baby at birth has been normal.[7] This is contrary to the report by Penn[8] who found four serious problems in six pregnancies. One of two babies who developed hyaline membrane disease died. One baby was born with pulmonary valvular stenosis, which required valvulotomy at the age of two. Two babies showed signs of hypoadrenalism. The reason for the high proportion of problems in this series seemed to have been prematurity rather than the deleterious effect of medications. Leukopenia and signs of hypoadrenalism require temporary supportive therapy, but complete recovery can be expected.[7,8]

Summary

Lack of libido, male impotence, and amenorrhea in women are common in patients with end-stage kidney diseases on hemodialysis. After a successful kidney transplant, resumption of reproductive function usually returns with improved kidney function.

Our personal experience with four pregnancies and the world literature has been reviewed. Fifty-four percent of pregnant women with kidney transplants had caesarean section and the rest delivered normally. There were 7.7 percent spontaneous abortions, 2.7 percent therapeutic abortion for declining kidney function, and 16.2 percent voluntary abortion. In 34 women with normal kidney function before pregnancy, two (6 percent) suffered a decline in kidney function that did not improve after childbirth. No increase in the rate of anomalies in children of individuals receiving immunosuppression was found.

The female recipients of successful kidney transplant should be advised to avoid pregnancy for a period of one to two years. Thereafter pregnancy is permitted only if the kidney function is normal and the patient is anxious to have a child. Repeated pregnancies should be discouraged. At this time there is no reason to discourage male recipients of kidney transplants from becoming a parent.

During pregnancy immunosuppressive medications are continued at the pre-pregnancy dose while the patient is kept under close observation for progress of the pregnancy and the status of kidney function. At term combined pyelography and pelvimetry will show if the kidney transplant may cause obstruction of the birth canal. Normal vaginal delivery is preferred. Caesarean section should be performed when there is obstruction of the pelvic inlet by the transplanted kidney or rapid decline of kidney function.

Addendum — Since this article was written the female recipient of a kidney transplant has conceived a second time and is in the sixth month of an uneventful pregnancy.

References

1. Sadler HH; University of California School of Medicine. Personal communication.

2. Merkatz IR, Schwartz GH, David DS, *et al:* Resumption of female reproductive function following renal transplantation. *JAMA* 216: 1749-1754, 1971.

3. Murray JE, Reid DE, Harrison JH, *et al:* Successful pregnancies after human renal transplantation. *N Engl J Med* 269: 341-343, 1963.

4. Board JA, Lee HM, Draper DA, *et al:* Pregnancy following kidney homotransplantation from a non-twin: Report of a case with concurrent administration of azathiorine and prednisone. *Obstet Gynec* 29: 318-323, 1967.

5. Caplan RM, Dossetor JB, Maughan GB: Pregnancy following cadaver kidney homotransplantation. *Amer J Obstet Gynec* 106: 644-648, 1970.

6. Bergan JJ: The twelfth report of the human renal transplant registry. Prepublication manuscript, 1975.

7. Rifle G, Traeger J: Pregnancy after renal transplantation: An international survey. *Transplantation Proceed* 7:723-728, 1975.

8. Penn I, Makowski E, Droegemueller W, *et al:* Parenthood in renal homograft recipients. *JAMA* 216: 1755-1761, 1971.

9. Githens JH, Rosenkrantz JG, Tunnock SM: Teratogenic effects of azathioprine (Imuran®). *J Pediat* 66: 959-961, 1965.

10. Jensen MK: Chromosome studies in patients treated with azathioprine and amethopterin. *Acta Med Scan* 182: 445-454, 1967.

11. Heslop RW, Krohn PL, Sparrow EL: The effect of pregnancy on the survival of skin homografts in rabbits. *J Endocrin* 10: 325-332, 1954.

12. Hellstrom KE, Hellstrom I, Brawn J: Abrogation of cellular immunity to antigenically foreign mouse embryonic cells by a serum factor. *Nature* 224: 914-915, 1969.

13. Heron I: Studies on postpartum rats accepting heart allografts. *Transplantation* 14: 239-243, 1972.

14. Revillard JP, Robert M, Dupont E, *et al:* Inhibition of mixed lymphocyte culture by alloantibodies in renal transplantation and in pregnancy. *Transplantation Proceedings* 5: 331-335, 1973.

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Annual Meeting Housing Application — Page 269

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It is the intention of the Committee for the 210th Annual Meeting of The Medical Society of New Jersey to make this meeting entertaining as well as productive. With this in mind, the Committee is preparing an original talent show, whereby the membership can exhibit their creative works or hobbies.

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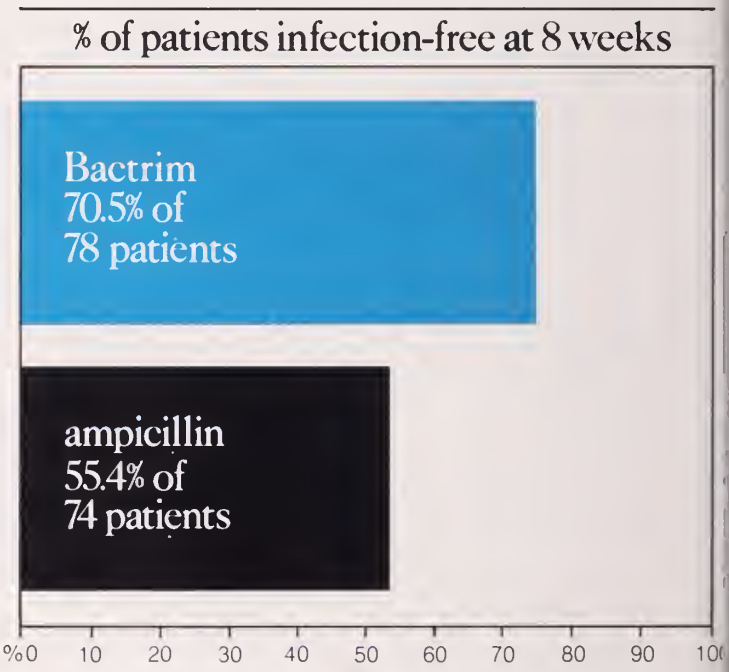

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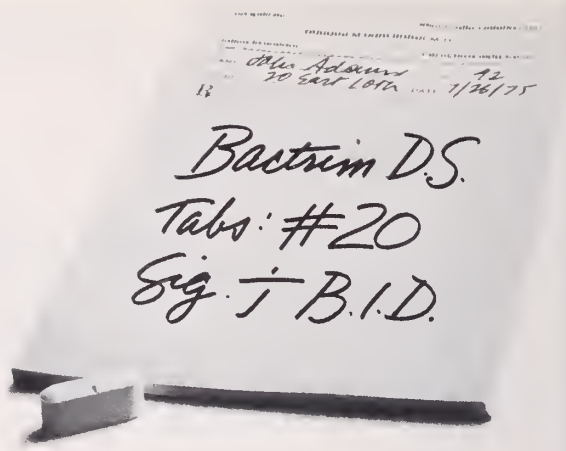

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A total of 613 patients was observed over a four-year period in a study to delineate the interrelationships between systolic hypertension, primary or secondary hyperglycemia, and hyperuricemia. These were subdivided into single entities and into their various combinations. A statistically significant increase in the incidence of cardiovascular complications involving the heart and brain was noted when hyperglycemia appeared in any combination with the other abnormalities. Hyperuricemia had a lesser effect upon the incidence of cardiovascular complications. A more definitive study as to the role of hyperglycemia and hyperuricemia in compounding the morbidity and mortality of the cardiovascular complications of systolic hypertension is necessary.

Systolic Hypertension, Hyperuricemia, and Hyperglycemia as Risk Factors in Cardiovascular Disease

Milton Shoshkes, M.D./Millburn

The major reported cause of death in this country for 1971 was heart disease (38.6 percent)[1]. When the mortality of closely associated illnesses including stroke (10.8 percent), diabetes mellitus (2 percent), arteriosclerosis (1.6 percent) and hypertension (0.4 percent) are added to heart disease mortality (53.4 percent of the total reported mortality) one must obviously accept it as our major problem in preventive medicine.

Systolic hypertension, usually asymptomatic, is frequently observed by the primary physician. Current medical opinion is that systolic hypertension is not a benign observation, but is at least as important as diastolic hypertension in regard to risk factors and mortality. Koch-Weser[2], in an editorial summation, urged that drug treatment was clearly indicated to prevent the widely acknowledged cardiovascular complications of the disease. Yet, Hollander, in reviewing the problem of hypertension as related to atherosclerosis, pointed out that, although many of the cardiovascular complications are prevented by adequate drug therapy, "there was no evidence at the present time that atherosclerotic complications of hypertension can be influenced by different drug regimens."[3]

Oral diuretics are the basic drugs prescribed in the initial treatment of hypertension. Their use often is associated with increased serum uric acid and glucose concentrations, but opinions differ with respect to the significance of these elevations. Observations such as those in this report may be of value in analyzing their clinical importance.

Method

This report concerns patients who were seen in my office and the hospital for treatment or consultation during a consecutive four-year period (April 1971 through March 1975). Their ages ranged from 15 to 83 years. Elevations in systolic blood pressure, serum uric acid, and serum glucose were recorded. The blood studies were confirmed by duplicate observations based on the normal ranges of several laboratories. Over 90 percent of the above patients were treated in my office, while the remainder were hospitalized for serious cardiac or cerebrovascular complications. We limited the complications considered, presumably due to atherosclerosis, to acute myocardial infarctions, presumed atherosclerotic heart disease with previous thromboses (as indicated by electrocardiographic and radiographic abnormalities), cerebral artery thromboses, and non-thrombotic ischemic cerebral arterial disease.

The follow-up documentation was limited by restrictions inherent in private medical practice, i.e., voluntary entrance and exit patients throughout the four-year period. A final evaluation of those leaving my supervision was not

always possible. Another major statistical limitation to this study is that patients who entered, even as late as the last month of this period, are weighted equally with those included from the very onset. Thus, this report is best considered as a time-stop overview of four consecutive years. However, despite these limitations, this study offers avenues for future investigative pursuits.

The 613 patients who were observed were divided into the following groups: (a) hypertension alone — 46, (b) hyperuricemia — 101, (c) hyperglycemia alone — 25, (d) hypertension with hyperuricemia — 188, (e) hypertension with hyperglycemia — 44, (f) hyperglycemia with hyperuricemia — 56, and (g) hypertension with hyperuricemia and hyperglycemia — 153.

These groupings were determined as final observations at the close of the study or when they were last observed. A number of these patients advanced from a single abnormal observation to multiple ones (e.g., a hypertensive developing hyperuricemia in later observations). However, the total observations are too limited in number to give statistical significance to such analyses and therefore the comparisons reported are limited to the groups already delineated.

It was impossible to separate with accuracy those elevations in serum glucose and uric acid which were primary in origin from those induced and secondary by oral diuretic therapy, as many patients had already been on such oral diuretics prescribed previously by other physicians. Thus, only the presence or absence of these abnormalities is indicated. The cardiovascular events recorded were not only limited to those occurring during this four year period, but also included those that had occurred in the past history of these subjects.

Results

The characteristics are tabulated in Table 1. The secondary complications included a total of 104 cardiac events, and only 18 cerebrovascular events. Of these eighteen, seven were in group (d), hypertension with hyperuricemia, and the remaining eleven in group (g), hypertension with hyperuricemia and hyperglycemia. Since these cerebrovascular complications were too few to be considered separately, the data have been lumped in with the other cardiovascular complications.

Table 1

Distribution of Results

Group	Characteristic	Total No. of Patients	Secondary Complications Number	Secondary Complications Percentage
A	Hypertension	46	2	4
B	Hyperuricemia	101	6	6
C	Hyperglycemia	25	1	4
D	Hypertension with Hyperuricemia	188	26	14
E	Hypertension with Hyperglycemia	44	10	23
F	Hyperglycemia with Hyperuricemia	56	18	32
G	Hypertension with Hyperglycemia and Hyperuricemia	153	59	39

Hypertension (a), hyperuricemia (b), and hyperglycemia (c) alone have approximately similar percents of atherosclerotic complications, ranging between 4 to 6 percent. When hyperuricemia appears with hypertension (d), this incidence of complication rises to 14 percent. When hyperglycemia accompanies hypertension (e), complications increase to 32 percent, and the highest incidence of complication is reached when all three variables present in combination (g) attaining 39 percent.

Table 2 is a statistical analysis of the probability levels of each pair contrast. Since the various groups ranged widely in their original total number, these comparisons can be regarded only

Table 2

Probability Levels for Each Pairwise Contrast[1]

Group	A	B	C	D	E	F	G
A	—	N.S.	N.S.	N.S.	*	**	***
B	—	—	N.S.	N.S.	**	***	***
C	—	—	—	N.S.	N.S.	*	**
D	—	—	—	—	N.S.	**	***
E	—	—	—	—	—	N.S.	N.S.
F	—	—	—	—	—	—	N.S.
G	—	—	—	—	—	—	—

[1]Entries in the table are coded as follows:
N.S. = Not significant (i.e. p .05)
* = .01 p .05
** = .001 p .01
*** = p .001
The Fisher Exact Test was used to compare A vs. B, A vs. C, B vs. C, C vs. D and C vs. E. All other comparisons were based on the chi square test with the continuity correction.[9]

as demonstrating a trend rather than delineating specific, indisputable differences. Larger and more equally based groups will have to be studied before more definitive conclusions can be drawn. Nonetheless, the data presented here do suggest a significant increase in cardiovascular complications when hyperglycemia appears with either hypertension or hyperuricemia, or with both of these elevations combined. The probability of a cardiovascular complication is greatest when all three abnormalities appear together. The combination of hyperuricemia with hyperglycemia significantly increases the possibility of such complications at nearly the same incidence, while hyperglycemia with hypertension follows last in indicating a significant cardiovascular complication. Hyperuricemia added to hypertension increases the incidence of complication over each single group, but a statistical significance is not confirmed.

Discussion

The purpose of this study was to identify possible future hypotheses that could be tested in a more definitive manner. In this report when hyperglycemia is added to systolic hypertension or hyperuricemia, either singly or in any combination, the occurrence of cardiovascular complications increases rapidly and significantly. Hyperglycemia remains a much debated topic in clinical medicine, especially concerning the range of presumptive normal levels of serum glucose in the aged. Yet, these same older adults are the very age groups most affected by the appearance of systolic hypertension and apparently, as indicated in this study, are also the most vulnerable to the atherosclerotic engendering effect of hyperglycemia. This vulnerability also has been emphasized in a recent UCLA conference that recommends a glucose tolerance test be performed in all hypertensive patients.[4]

The high incidence of hyperuricemia in hypertension has been reported by others,[5-8] usually averaging approximately 60 percent in these studies. This present study suggests that it does add to the threat of increased cardiovascular complication but not to the same degree as does hyperglycemia. Of course, any gouty diathesis that might be induced in these patients, either by primary or secondary elevations, could be of clinical significance, especially if renal disease occurs.

A more exacting analysis of the threat of hyperglycemia whether primary, as in diabetes mellitus, or secondary to diuretic drug administration in the hypertensive, is needed. Since this metabolic defect is treatable and reversed by several available therapeutic modes, cardiovascular complications to this biochemical disorder might be modified or even prevented. In my practice, I strive to bring all patients to normal glycemia levels using diet control, oral hyperglycemic agents, or insulin as indicated. Finally, hyperuricemia, which is noted so frequently in hypertension, may be primary or due to oral diuretic therapy. This association needs to be investigated, including its possible role in inducing secondary cardiovascular complications.

Credit is due S. H. Kane, M.D., and R. R. Gauch, Ph.D. of Ciba-Geigy for the statistical analyses.

References

1. Mortality for leading causes of death: United States 1971. *Ca-A* 25:10, 1975.

2. Koch-Weser J: The therapeutic challenge of systolic hypertension. *N Engl J Med* 289:481-2, 1973.

3. Hollander W: Hypertension, antihypertensive drugs and atherosclerosis. *Circulation* 48:1112-1125, 1973.

4. The U.C.L.A. Conferences: Hypertension — primary and secondary. *Ann Int Med* 75:761-766, 1971.

5. Itskovita HD, Sellers AM: Gout and hyperuricemia after adrenalectomy for hypertension. *N Engl J Med* 268:1105-1108, 1963.

6. Kinsey D, Walther R, Sise HS, Whitelaw G, and Smithwick R: Incidence of hyperuricemia in 400 hypertensive patients. *Circulation* 24:972, 1961.

7. Dollery CT, Duncan MB, and Schumer B: Hyperuricemia related to treatment of hypertension. *Brit Med J* 2:832-5, 1960.

8. Cannon PJ, Stason WB, Demartin F, Sommers SC, and Laragh JH: Hyperuricemia in primary and renal hypertension. *N Engl J Med* 275:457-464, 1966.

9. Dixon WJ and Massey FJ: *Introduction to Statistical Analysis.* (3rd Ed.) New York, McGraw-Hill, 1969. p. 243.

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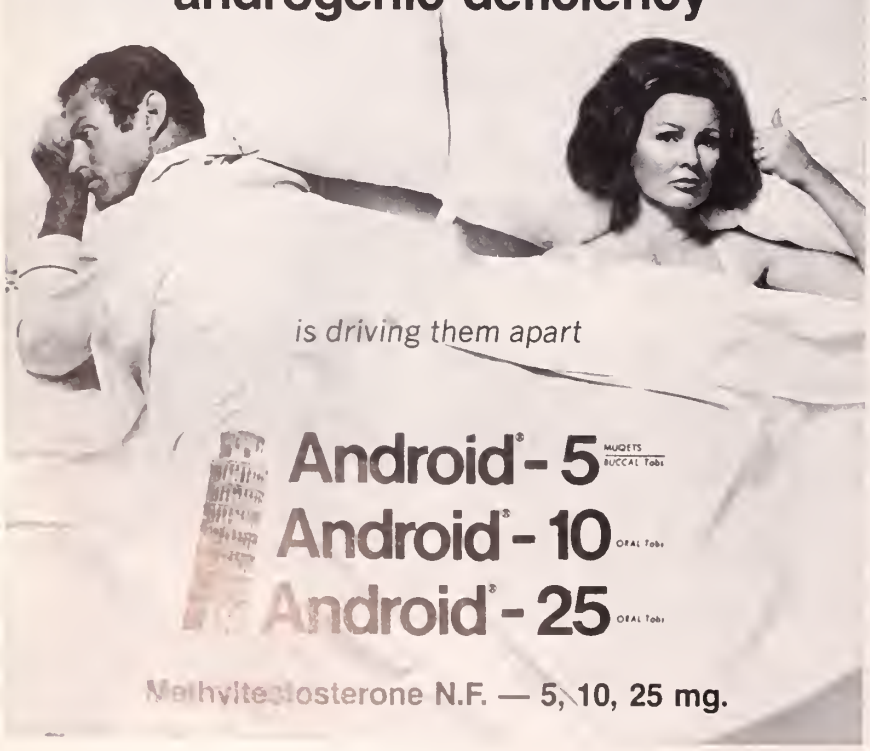

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A series of 30 patients with operable and borderline operable breast cancer, treated with 4000 rads preoperative Cobalt 60 irradiation and radical mastectomy is presented. Radiation morbidity was slight and did not interfere with surgical dissection or postoperative healing. Residual tumor was found in the breast specimen in only 50 percent, and in only 33 percent of those with excisional biopsy. Axillary nodes were positive in 45 percent. Twenty-eight of the 30 patients are alive and free of disease from 13 to 52 months. To date local recurrence has not developed in the irradiated areas.

Preoperative Radiotherapy of Breast Cancer

L. J. Sanfilippo, M.D.,
V. Medina, M.D.,
L. R. M. Del Guercio, M.D., and
F. Fuller, M.D./Livingston*

The treatment of early or operable breast cancer is undergoing intensive reappraisal.[2, 6, 10] Numerous controlled clinical trials are in progress at home and abroad. Limited surgical procedures (tylectomy, total mastectomy, modified total mastectomy) combined with regional irradiation are being compared with radical and extended radical mastectomy.[2, 6]

American authorities still consider these trials inconclusive. They continue to recommend the radical mastectomy as the treatment of choice.[1, 15, 13] Impressive clinical data suggest that survival rates of patients treated with radical mastectomy may be enhanced by the use of pre-operative irradiation.[9, 16] Potter states that a randomized clinical trial is urgently needed to answer this question.[12]

Most surgeons are reluctant to employ preoperative irradiation, however. Objections stated are: the morbidity of radiotherapy; the prolongation of treatment course; the suppression of immunological defenses; the dissemination of disease before surgery; the risk of increased surgical complications; and the "radioresistance" of mammary cancer cells.

In January 1971, a limited study was undertaken at Saint Barnabas Medical Center to test the feasibility of preoperative irradiation for early and borderline operative breast cancer. Treatment policy consisted of preliminary Cobalt 60 irradiation of 4000 rads to the breast, chest wall and regional lymphatics. This was followed in five to six weeks by standard (conventional) radical mastectomy. This report will analyze radiation morbidity, surgical complications, and results achieved to date.

Materials and Methods

During the four and a half year period reviewed, 30 patients received combined treatment. The follow-up period ranged from 13 to 52 months and was complete in all cases.

Age Range: The patients varied in age from 37 to 76 years. Two thirds of the cases were between 40 and 60 years old. (See Table 1)

Table 1

Age Range	*Number of Patients*
35-40 years	1
41-50 years	10
51-60 years	10
61-70 years	8
71-76 years	1

Clinical Stage: All cases were staged by the TNM† classification recommended in 1973 by the American Joint Committee for Cancer Staging and End Results Reporting.[4] (see Table 2) Tissue diagnosis of the primary lesions was established by excisional biopsy in 22 cases, by incisional biopsy or needle biopsy in six patients,

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†T—Primary Tumor; N—Regional Lymph Nodes; M—Distant Metastasis

Table 2

Clinical Stage (TNM)

Breast	*Axilla*	*Stage*
T_0-1	N_0-18	I-8
T_1-9		
T_2-14	N_{1a}-1	II-16
T_3-3	N_{1b}-11	III-6
T_4-3		

and by examination of the amputated breast specimen in two others.

In the two cases without pre-treatment biopsies, the initial diagnosis was determined by axillary node biopsy in one patient, (T_0, N_{1b}) and obvious clinical signs in the other (T_3, N_0). All T_1 cases had clinically palpable lesions. The three T_4 lesions had localized skin involvement. Axillary nodes were clinically positive in 11 cases, two of which were proved by needle biopsy,[1] and excisional biopsy.[1] Twenty-two of the 30 patients (73 percent) had disease in the Stage II or Stage III category.

Histological Type: All tumors were verified as mammary adenocarcinomas. They were classified as infiltrating ductal type in 29, and medullary carcinoma in one case.

Radiotherapy: All patients were irradiated with the Siemens Cobalt 60 Gammatron by a modified McWhirter technique. Medial and lateral tangential ports were employed to irradiate the breast, anterior chest wall, ipsilateral parasternal lymphatics and the mid- and lower axilla. A shaped direct anterior port was used for the high axilla-supraclavicular region. A tumor dose of 4000 rads in 20 fractions in four weeks was administered to all patients. Bolus was not employed routinely. In five cases, the axilla or internal mammary chain received a supplemental dose of 400 to 800 rads.

Acute Radiation Reactions: Radiotherapy was very well tolerated. Local effects noted were skin reactions and mild transient dysphagia. (See Table 3) All skin reactions healed promptly within three weeks after the completion of radiotherapy.

Interval Before Surgery: A waiting period of several weeks was allowed between radiotherapy and surgery to permit complete resolution of radiation reactions and maximum tumor destruction. The interval before surgery varied from 28 to 61 days. (See Table 4)

Table 3

Acute Radiation Reactions

Reactions	*Number*
Skin Erythema and Mild Subcutaneous Edema	30
Hyperpigmentation Skin	6
Dry Desquamation	13
Mild Transient Dysphagia	12
Mild Nausea	1
Symptomatic Radiation Pneumonitis	0

Table 4

Interval Before Surgery

28-34 days	8 patients
35-42 days	16 patients
43-61 days	6 patients

Surgical Procedures and Complications: Surgery was performed by five different operators, although two of them contributed 26 of the 30 cases. Standard radical mastectomy was employed in all 30 patients. Seven had split-thickness skin grafts applied to the chest wall to close the surgical defect. No difficulties in dissection or excessive bleeding were encountered. All skin grafts took primarily. Uncomplicated healing *per primum* occurred in 87 percent of the cases. Postoperative complications were minor. (See Table 5) The texture of the irradiated tissues, including skin grafts, has remained excellent in all patients. No cases of rib necrosis have occurred.

Table 5

Complications of Combined Therapy

Complications		*Number*
Healing per primum		26
Seroma and Cellulitis		1
Wound infection		2
Minor necrosis edge of graft		1
Arm edema		7
Mild	— 3	
Moderate	— 3	
Severe	— 1	
Restricted Shoulder Motion		1

Findings in the Surgical Specimen: Microscopic study revealed residual tumor in the breast in only 15 of the 30 cases. (See Table 6) Three of the 15 contained pre-invasive cancer only. Approximately one-third of the cases with ex-

cisional biopsy had persistent cancer cells in the breast specimen.

Table 6

Residual Carcinoma in the Breast Specimen

Clinical Lesion	CA in Spec.	Total	CA in Spec.	Total with Excis. Bx.
T_0	1	1	0	0
T_1	3	9	3	9
T_2	5	14	4	13
T_3	3	3	0	0
T_4	3	3	0	0
Total	15*	30	7*	22

*3 with intraductal carcinoma or lobular carcinoma *in situ* only (2 T_1, 1 T_2 lesions)

Examination of the axillary surgical specimens permitted recovery of 10 to 33 axillary lymph nodes per case. Tumor was found in axillary nodes in 14 of the 30 specimens (45 percent). (See Table 7) One to four positive nodes were present in ten cases, six of whom had only one positive lymph node. The remaining four specimens contained 5 to 10 positive nodes. Complete sterilization of a biopsy-proved positive node was seen in one case. Axillary metastases were found in two of eight cases with Stage I disease; nine of sixteen with Stage II disease; and three of six cases with Stage III cancer.

Table 7

Residual Carcinoma in the Axillary Specimen

Clinical Stage	CA in Spec.	Total
N_0, N_{1a}	7	19
N_{1b}	7	11
Total	14*	30

*only 1 node positive in 6 of 14 cases

Results

Results are seen in Table 8. Survival time is calculated from initiation of radiotherapy. Ninety-three per cent (28/30) are living and free of disease from 13-52 months. Two patients with extensive axillary metastases at surgery are dead of disseminated carcinoma. Neither developed recurrence in the irradiated areas. The incidence to date of local recurrence is zero. Survival results according to clinical stage are seen in Table 9.

Table 8

Results of Combined Treatment of Breast Carcinoma

Survival	13-24 months	25-36 months	37-52 months
Alive and Well	15	5	8
Dead of Carcinoma	1	1	—

Table 9

Breast Carcinoma Survival According to Stage

	Stage I	Stage II	Stage III
Alive and Well	8	15	5
Dead of Carcinoma	0	1	1

Discussion

Theoretically, preoperative irradiation may improve survival results of radical surgery in several ways: (1) it may destroy disease confined to the regional area; (2) it may reduce the risk of dissemination at surgery; and (3) it may prevent implantation of disseminated tumor emboli.[14]

Preoperative irradiation, even in moderate doses, can totally eradicate occult tumor extensions or small metastases in regional nodes. Large tumor masses may have a large fraction of their cell population destroyed or rendered reproductively impotent. The risk of dissemination locally or through lymphatic and vascular channels during the trauma of radical mastectomy is thereby lessened. Tumor destruction also causes a reduction in the body "tumor burden" so that dislodged viable tumor emboli may be successfully eliminated by immunological defenses.[3]

Fletcher has provided considerable clinical evidence to support these hypotheses. In 1973, he reported results of 1018 cases of breast cancer treated by radical mastectomy.[9] Of these 246 received radical mastectomy only, 419 were given preoperative irradiation, and 353 postoperative x-ray therapy. The ten-year survival rates were 63, 62, and 50 percent.

Those given preoperative irradiation had borderline operable lesions, or surgically "disturbed" tumors previously seen to have a high rate of local recurrence (33 percent) after radical mastectomy.[9, 16] A dose of 4000 rads to

the breast, chest wall, and regional lymphatics produced apparent reduction in tumor stage, histological evidence[7] or marked tumor cell damage or destruction 90 percent, and a very low local regional recurrence rate.[9]

Clinically positive nodes were palpable in 54 percent, but only 29 percent were positive at surgery. The chest wall recurrence rate was 4.5 percent, the lowest of the three groups with radical mastectomy. In patients with positive axillary nodes, only 3 percent developed supraclavicular nodal disease, compared to the expected incidence of 20-25 percent.

The ten-year survival rate of the patients with preoperative irradiation was equal to those treated by radical mastectomy alone despite the higher incidence of positive nodes of 29 percent, compared with 9 percent in the pure surgical series. These data suggest that regional preoperative irradiation cures a percentage of patients, since survival rates decreased with increased involvement of axillary nodes in all reported series.

These results disprove the theory that radiotherapy increases the probability of distant metastases by immunosuppression.[11] They also show that delay before surgery, when preoperative irradiation was given, does not compromise cure rates.

The surprising effectiveness of doses as low as 4000 rads on mammary cancer cells can be explained by the fact that radiosensitivity depends not only on tumor type, but also the total number of cells (tumor size) and the degree of cell oxygenation. Small tumor volumes are less likely to have radioresistant anoxic cells.[14] Clinical dose response curves for breast cancer show a definite correlation between effective dose and tumor size.[8] Subclinical disease in lymphatics can be controlled in 60 to 70 percent of cases with 3000 to 3500 rads, in 80 to 90 percent with 4000 rads, and 95 percent with 4500-5000 rads. Palpable axillary or supraclavicular nodes of moderate size require 6000 to 7000 rads for 90 percent control. High doses of up to 9000 rads (protracted irradiation) are necessary for 70 to 80 percent control of large advanced primary tumors.

Data from our series regarding radiosensitivity are unclear since patients with smaller lesions underwent excisional biopsies to avoid direct surgical trauma to the tumor mass. However, the low percentage of residual tumor in these breast specimens (32 percent) suggests that 4000 rads is effective for microscopic or small disease remaining after excisional biopsy. The incidence of residual tumor was one-half that seen after wide excisional biopsy alone of infiltrating tumors 1.1 to 3 cm in diameter.[17]

Data from axillary irradiation are more difficult to interpret because of the small statistical sample of positive nodes and the large error in clinical appraisal. In this study, 37 percent of patients had clinically positive nodes prior to irradiation. At surgery, 45 percent had histologically positive nodes, although nearly one-half (6 of 14) had only one positive node.

The viability of residual tumor cells found five to six weeks after irradiation remains uncertain. Suit showed in mouse mammary carcinomas that morphologically intact tumor cells removed 19-44 days after irradiation may be incapable of reproduction.[15]

Radiation morbidity was low with 4000 rads and postoperative complications were minor. The incidence of lymphedema of the arm was not increased since only 13 percent had moderate or severe swelling. In White and Fletcher's large series, no increase in postoperative wound complications was reported after 4000 rads in four weeks of Cobalt 60 irradiation.[16]

Results of treatment in this study are inconclusive. The follow-up period is too short to determine survival and recurrence rates. However, since three-fourths of recurrences in the chest wall and regional lymphatics develop within two years and nearly one-half within one year,[18] results would appear promising. Further clinical trial of preoperative irradiation and radical mastectomy is warranted.

Summary

1. A series is presented of 30 patients with early or borderline operable breast carcinoma in whom conventional radical mastectomy was performed after 4000 rads Cobalt 60 irradiation.

2. Preoperative irradiation produced little morbidity and no interference in surgical technique or postoperative wound healing.

3. Residual tumor was found in 50 percent of the amputated breast specimens. Axillary lymph nodes contained tumor in 45 percent.

4. The survival rate to date is 93 percent, with a follow-up period of 13 to 52 months. The recurrence rate in the chest wall and regional nodes is zero.

Bibliography

1. Anglem TJ: Management of breast cancer: Radical mastectomy. *JAMA* 230:99, 1974.

2. Baum M: Surgery and radiotherapy in breast cancer. *Sem Oncol* 1:101, 1974.

3. Cole WH: The mechanisms of spread of cancer. *Surg Gynec Obstet* 137:853, 1973.

4. Cutler S: Classification of extent of disease in breast cancer. *Sem Oncol* 1:91, 1974.

5. Editorial: American Cancer Society. Policy statement on surgical treatment of breast cancer: *CA — A Cancer Journal for Physicians* 23:341, 1973.

6. Fisher B: Cooperative clinical trials in primary breast cancer: A critical appraisal. *Cancer* 31:1271, 1973.

7. Fletcher GH and White EC: Possibilities of supervoltage roentgenotherapy in the management of cancer of the breast. *South Med J* 52:805, 1959.

8. Fletcher GH: Clinical dose response curves of human epithelial tumors. *Br J Rad* 46:1, 1973.

9. Fletcher GH: *Textbook of Radiotherapy*. Philadelphia, Lea and Febiger, 1973. p. 451.

10. Haagensen CD, *et al:* Treatment of early mammary cancer: A cooperative study. *Ann Surg* 170:875, 1969.

11. Meyer KK: Radiation induced lymphocyte — Immune deficiency. *Arch Surg* 101:114, 1970.

12. Potter JF: Preoperative irradiation and surgery for certain cancers. *Cancer* 35:84, 1975.

13. Rosamond GP and Maier WP: Role of mastectomy in breast cancer. *Sem Oncol* 1:97, 1974.

14. Sanfilippo LJ: Preoperative irradiation of breast cancer. *J Med Soc NJ* 69:531, 1972.

15. Suit HD and Gallagher HS: Intact tumor cells in irradiated tissue. *Arch Path* 78:648, 1964.

16. White EC: *Breast Cancer: Early and Late*. Chicago, Yearbook Medical Publishers, 1970. p. 155.

17. Wanebo HJ, Huvos AG, and Urban JA: Treatment of minimal breast cancer. *Cancer* 33:349, 1974.

18. Zimmerman KW, Montague ED, and Fletcher GW: Frequency, anatomical distribution, and management of local recurrences after definitive therapy for breast cancer. *Cancer* 19:67, 1966.

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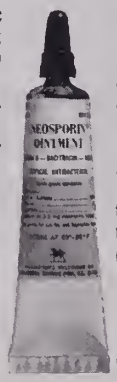

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A study of 13 neighborhood health centers throughout New Jersey finds great variability along 15 dimensions including services offered, staffing patterns, consumer participation, expenditures, administration, and financial support. Conclusions noted that the health centers serve a majority of young people under 15 from lower socioeconomic population groups. Questions are raised about physician productivity and continuity of care. Without major changes in health care financing, self-sufficiency for most non-profit health centers is unlikely. Recommendations are offered and additional investigations are urged to gain relevant knowledge for health care services.

Alternatives in Health Care

A Study of Health Centers in New Jersey

Donald Malafronte, Peter R. Breyer/East Orange and Allen D. Spiegel, Ph.D./Brooklyn*

Ambulatory or primary care is most frequently delivered in the office of a private physician engaged in general practice, family practice, internal medicine, pediatrics or by an obstetrician/gynecologist.

As Freidson[2] puts it, "For all its importance the hospital is not the major source of medical care." Most service is dispensed in the traditional doctor's office to which the patient goes when he has a complaint, where he is examined and treated, and from which he departs to return to his own home.

However, in areas where physicians are scarce, as in many urban neighborhoods in New Jersey, alternative forms of health care delivery have developed which constitute a major resource. Among them are various forms, often loosely grouped under the phrase "health centers."

Study Objectives

The New Jersey Department of Health with the assistance of the New Jersey Regional Medical Program, contracted with the Urban Health Institute of East Orange to survey and assess grant-supported health centers within the state. Specifically, the objectives of the study were:

(1) to identify existing health centers in New Jersey,

(2) to describe the operating status of the centers,

(3) to identify and describe center problems,

(4) to assess center prospects for self-sufficiency, and

(5) to develop recommendations for improvement.

Criteria for Center Selection

Selection for inclusion in the study sample of health centers was based upon the following criteria:

(1) Membership in the New Jersey Health Center Association.

(2) Provision of diagnostic and treatment services as principal activities.

(3) Support provided entirely or partially by federal, state or local grant funds, exclusive of Medicare or Medicaid.

(4) Identification of the center as an independent unit in terms of administration and physical location.

(5) Provision of patient services as of July 1, 1973 or a grant award by that date to provide services in 1973 and throughout the survey period of the first half of 1974.

These criteria established for the survey permitted the inclusion of every voluntary or non-profit health center in New Jersey known to be

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This study was conducted with financial support from the New Jersey State Department of Health, with the assistance of the New Jersey Regional Medical Program, Inc. Dr. Donald S. Kwalick and Messrs. Alphonzo Lawson and Matthew Null coordinated the collection of data and contributed to their analysis.

providing health care during the survey period. Additionally, two proprietary health centers were also included under these criteria.

Health Center Location Map

Thirteen health centers met the criteria for inclusion and were further classified into categories as follows:

(8) Hospital operated, either at the hospital or a satellite facility

(3) Free-standing, non-profit

(2) Free-standing, proprietary

The great majority of the health centers were clustered in the northeast section of the state. Obviously, the geographic distribution leaves many areas out of the service range of the existing health centers. (See map)

Methodology

Personal interviews and a self-administered data summary form were the basic components of the study. A three-month period was designated in which to secure the data. A 44-page instrument was developed to obtain the factual data about the administrative functioning of each center. In January, 1974 each health center administrator received the data summary to be filled out and returned to the investigators.

At the same time, appointments were scheduled for personal interviews with the administrator, medical director and community advisory board chairman of each health center. Where centers provided dental and social services, the directors of those services were also interviewed.

A total of 52 interviews was conducted including all 13 health center administrators, all 13 medical directors, six dental directors, nine social service directors and 11 community advisory board chairmen.

Data from these sources were compiled according to the project objectives. For each of the 13 health centers, an individualized case history narrative was prepared utilizing the 15 headings that will be reported upon in the findings section of this paper.

Findings

Services — Primary care services at the health centers ranged from 31 to 198 physician-hours per week. A total of 1,100 physician-hours per week were provided at all 13 centers. Specialty services offered at the centers totaled an additional 290 hours with almost three-quarters of the time consisting of OBS/GYN services at seven centers. Seven centers provided an additional 348 hours of dental care (see Tables 1, 2, 3).

Hours of Operation — All centers operated at least five days per week, Monday through Friday, averaging 40 hours per week. A number of centers offered services after five and a few on Saturdays.

Patient Eligibility — In most instances, eligibility was determined by residence in the city or in the immediate neighborhood of the health center.

Patient Characteristics — In 11 centers, black and Spanish-speaking patients constituted more

Table 1

Primary Medical Service By Hours Per Week

Centers	General and Family Practice	Internal Medicine	Pediatrics	Total
Bridgeton	44	—	—	44
Christ	27	—	4	31
Gladys Dickinson	—	40	40	80
Middlesex	—	44	24	68
Overlook	37	—	4	41
Perth Amboy	40	—	40	80
Phillips-Barber	*92-131	—	—	*92-131
St. Mary	100	40	—	140
North Jersey	—	55	64	119
Plainfield	25	—	14	39
Trenton	—	120	78	198
Lyons	—	8	60	68
Paterson	40	—	40	80
Total	425	307	368	1,100

*Residents are used in rotating schedule in which hours per week fluctuate with teaching programs. Hours per week average out to 112 per week.

Table 2

Specialty Medical Services by Hours per Week

Centers	Ob/Gyn	Oph	Psych	Surg	Card	Rad	Derm	Total
Bridgeton	—	—	—	—	—	—	—	—
Christ	—	8	—	—	—	—	—	8
Gladys Dickinson	8	—	—	—	—	—	—	8
Middlesex	8	—	—	—	—	—	—	8
Overlook	—	—	—	—	—	—	—	—
Perth Amboy	—	—	—	—	—	—	—	—
Phillips-Barber	—	—	—	—	—	—	—	—
St. Mary	—	—	—	—	—	—	—	—
North Jersey	36	—	—	—	—	—	—	36
Plainfield	40	—	—	—	—	—	—	40
Trenton	105	—	35	—	—	—	—	140
Lyons	8	—	—	8	—	—	4	20
Paterson	18	—	5	—	5	2	—	30
Total	223	8	40	8	5	2	4	290

Table 3

Social and Other Services Offered

Centers	Social Work & Social Services	Mental Health	Nutrition	Pharm	Pod	Health Educa.	Auditory	Optom	Dental
Bridgeton									
Christ	X					X			
Gladys Dickinson			X						X (40 Hrs)
Middlesex	X								
Overlook	X					X			
Perth Amboy	X					X			X (28 Hrs)
Phillips-Barber									
St. Mary									
North Jersey	X		X			X			X (80 Hrs)
Plainfield						X			X (20 Hrs)
Trenton	X	X	X	X					X (80 Hrs)
Lyons	X					X		X	X (60 Hrs)
Paterson				X	X		X		X (40 Hrs)

than 60 percent of the patient population. Two centers reported a patient load of more than 60 percent white. Eight centers reported that more than 40 percent of their patients were under age 14. Persons over age 55 were the smallest group in 12 centers; only one center reported the elderly as a majority of its patients.

Annual family income of less than $5,000 marked the majority of patients served at all but one health center.

Patient Illness — Hypertension and cardiovascular diseases were the most common adult illnesses seen. Upper-respiratory infections and gastro-intestinal disorders were most common in children.

Utilization — Patients seen per reported physician hour ranged from 0.79 to 3.44, with a median of 1.97.

Center Protocol — Most of the centers register entire families for services. Similar flow patterns of patients were reported at all centers. However, only one center reported a formal, operational agreement with a back-up hospital for specialty and/or inpatient care. Most center physicians did not treat center patients when hospitalized except for obstetrical services. Eight centers reported that patient records were sent to the hospital and returned to them with discharge summary reports. Five centers reported an internal medical audit is conducted.

Staffing — Twenty-three full-time physicians are employed at the health centers; four are American trained. Of the total 79 physicians providing services at the 13 centers, 23 were board eligible and 26 board certified. Three centers utilized residents. (see Table 4).

About half of the 57 nurses employed at all centers are registered nurses. Free-standing health centers employed the largest number of ancillary personnel; one had 16, another 12 and the other seven.

Administration — Nine centers had full-time on-site administrators. About 21 percent of the total personnel expenses were attributable to administration with an average ratio of two administrative employees to every one medical/dental practitioner.

Community Participation — Nine centers had advisory boards with consumers reported as the majority membership at almost all centers. Major areas of participation included determination of the community's needs for service, establishment of new programs, determining center priorities, reviewing patient eligibility criteria, reviewing patient grievances and reviewing the budget. Eight of the 11 community persons in-

Table 4

Number and Characteristics of Physician Staff

Centers	Total Number	Full-Time Equiv.	Number of Residents	Number Full-time	Number Bd Eligible	Number Bd Certified	Percentage of hours provided by Bd/Eligible Cert. MD	Number American trained
Bridgeton	2	1.10	0	1	0	0	0%	1
Christ	4	.98	1	0	2	0	41%	1
Gladys Dickinson	4	2.20	0	2	1	3	100%	0
Middlesex	4	1.90	0	1	0	2	58%	1
Overlook	2	1.03	0	1	0	1	10%	2
Perth Amboy	3	2.00	0	1	3	0	100%	0
Phillips-Barber	12	2.80	10	**2	0	2	100%	2
St. Mary	6	3.50	4	2	1	0	39%	0
North Jersey	6	3.88	0	2	4	1	90%	1
Plainfield	5	1.96	0	1	0	0	0%	3
Trenton	13	*8.45	0	8	7	5	95%	2
Lyons	12	2.20	0	0	5	7	100%	11
Paterson	6	2.68	0	2	0	5	100%	4
Total	79	34.68	15	23	23	26		28

*Based on forty-hour week even though 35 hours is considered full time in the center
**Physicians split their time 50%-50% between practice and administration

terviewed in this study were not registered patients at the center where they served on the advisory board.

Physical-Facilities and Certification — All eight hospital affiliated centers provided X-ray, laboratory and pharmacy services at the hospital. The others provided these services at their location. Seven centers had dental facilities on site. Three centers had physical quarters measuring 10,000 or more square feet. Only four centers owned their facilities. Nine centers had six or more examining rooms with one of the proprietary centers having 18. All eight hospital-operated centers had Medicaid certification as part of the hospital's outpatient department. The other centers had passed on-site facility inspections for certification by Medicaid.

Grant Funds — Ten centers were directly stimulated to begin or to expand services by the award of a state or federal grant. Another began with a foundation grant. One proprietary center received a federal HMO grant that led to its establishment while the other proprietary center also received a grant to study health needs in its service area. A primary grant source accounted for 67 percent or more of total grant funds at 11 centers.

Agencies awarding grants to the centers included the N.J. State Health Department, N.J. Department of Community Affairs, N.J. Regional Medical Program, local Model Cities Agencies, U.S. Department of Health, Education and Welfare, U.S. Office of Economic Opportunity and local Community Development Programs.

Expenditures — A median of $288,957 was expended by the centers during 1973 with a range from $107,182 to $1,688,979. The median of personnel expenditures for all centers was 74 percent of total expenditures with a range of 30 percent to 84 percent. Median expenditures for administrative personnel was 13 percent of total expenditures with a range of 3 percent to 22 percent.

Rates/Billings/Collections — Seven centers used an interim rate per physician visit which ranged from $8 to $37 with a median of $17. Three centers used a fee-for-service rate set at $7.50, $10, and $12, respectively. Three free-standing centers utilized all inclusive rates which were $20, $25, and $26, respectively.

Billings at the centers ranged from $7,510 to $435,752 with a median of $178,899.

Collections from all sources of reimbursement ranged from $4,909 to $289,884 with a median of $69,150. In nine centers Medicaid reimbursement represented the largest single collection source; in two health centers direct patient payments were the largest source. Five centers did not collect any reimbursement from Medicare. One center experimented with a prepaid care plan but the data were unavailable as to definite costs.

Concerns — Eleven centers expressed concern about insufficient funding, the number of patients who cannot pay and third-party reimbursement rates which did not cover costs. Additionally, ten centers expressed concern about inadequate physical facilities. For a comparative summary of selected characteristics of health centers, see table 5.

Conclusions

"Health Centers" act as viable alternatives to the traditional medical care provided for the poor. Services are offered in forms which differ from those at traditional hospital outpatient clinics, emergency rooms or private physician offices. A wide variety of community health delivery programs are utilized and this concurs in the findings and conclusions of a recent American Medical Association Task Force study of 30 centers throughout the United States.[1]

Most centers are located in under-served neighborhoods, kept open for longer time periods and utilize neighborhood residents as support personnel while attempting family-oriented care. A majority of persons seen at the centers are black or Spanish-speaking and are under 15 years of age.

Hospital-operated centers represent a significant expansion of previously offered outpatient services. In some cases, the centers have replaced

Table 5

Summary of Selected Center Characteristics

Center & Address	Date Open	1973 MD Enc'trs	MD Hrs[3] Weekly	F/T MDs	Enc'trs MD Hr.	1973 Exp'ds	Bill'gs[1]	Collect'ns[1]	Fee Per MD Visit	Cumulative Grant Support (To Date Indicated)		
(A) Hospital-Operated												
Bridgeton Family Health Center, South Avenue School, South Avenue, Bridgeton	4/73	2,009	44	1	1.17	$ 150,611 (9 mos. Incl. Equipment)	$ 12,800	$ 7,067	$ 8.00	$169,220 NJ RMP (87%)	$ 25,000 CDA (13%)	6/30/74
Christ Hospital Comm. Health Center, 6028 Broadway, West New York	4/73	3,250	39	0	2.14	$ 259,600 (9 months)	$ 47,677	$ 21,280	$10.00	$207,525 NJ RMP (98%)		6/30/74
Gladys Dickinson Family Health Center, 95 Seventh Avenue, Newark	7/73	3,662	88	2	.80	$ 286,520[1] (6 months)	$169,359	$ 47,241	$20.00	$209,528 Model Cities (87%)	$ 30,000 Local (13%)	12/31/73
Middlesex Family Health Center, 79 French St., New Brunswick	1/72	10,546	76	1	2.69	$ 288,957	$435,752	$201,618	$17.00	$326,748 NJ RMP (82%)	Various	12/31/73
Overlook Family Health Center, 289 Hilton Ave., Vauxhall	4/72	2,008	41	1	.94	$ 107,182	$ 36,993	unav.	$37.00	$108,333 St. Health (72%)	(See Previous Column)	12/31/74
Perth Amboy Neighborhood Health Center, 205 Hall Ave., Perth Amboy	1/72	9,057	80	1	2.18	$ 353,560[1]	$ 53,247	$ 44,634	$10.00	$641,605 Model Cities (67%)	$112,500 State Health (12%)	6/30/74
Phillips-Barber Health Center, North Main Street Lambertville	1/70	12,879	92[2] to 131	2 (50% admin)	2.69[2] to 1.89	$ 238,393[1]	$201,724	unav.	$ 7.50	$ 68,508 HEW (100%)		12/31/74
St. Mary Hospital Family Health Center, 308 Willow Street,	5/73	5,661	140	2	1.62	$301,426 (8 mos. Incl.	$362,069	$224,870	$16.50 (Per 15	$318,460 NJ RMP	$146,255 Model	6/30/74

(B) Free-Standing												
North Jersey Comm. Union Health Center, 105 Charleston St., Newark	1/70	10,682	155	2	1.97	$ 703,825	unav.	$ 69,150	$26.00	$1,403,182 OEO (68%)	$255,000 State Health (12%)	6/30/74
Plainfield Neigh. Health Center, 605 West 4th Street, Plainfield	1/71	6,336	79	1	.79	$ 242,291	$ 7,510	$ 4,909	$25.00	$596,801 Model Cities (68%)	$206,014 State Health (24%)	6/30/74
Trenton Neigh. Health Center, 225 No. Warren Street, Trenton	10/69	24,906	303	8	1.58	$1,688,979 (6/1/73 5/31/74 Est.)	$240,559 (Calendar 1973)	$167,389	$20.00	$6,036,322 HEN (94%)	$170,000 St. Health (3%)	5/31/74
(C) Proprietary												
Lyons Family Health Center, 172 Clinton Avenue, Newark	3/70	15,729	88	0	3.44	$ 349,791	$332,586	$299,884			NONE	
Paterson Family Health Center, 227 Broadway, Paterson	10/72	15,800	110	2	2.76	$ 324,616 (4/1/72-3/31/73)	$188,439 (Six Months 4/1/73 - 9/30/73)	$141,710			NONE	

(Calendar 1973)

FOOTNOTES

[1]Expenditures and other data are as reported by the centers. Expenditures reported by hospital-operated centers are artificially lowered in most cases by the fact that expenditures involved in providing ancillary services are *not* included. Comparison of expenditures with billings and collections at these centers must be treated with caution, since billings and collections *include* billings and collections for ancillary services. Exceptions among hospital-operated centers are Gladys Dickinson (expenditures include all ancillary costs), Perth Amboy (expenditures include x-ray costs for patients without third-party coverage and all laboratory costs) and Phillips-Barber (expenditures include "most" laboratory costs).

This unevenness in reporting expenditures and billings and collections does not exist in the cases of the free-standing and proprietary centers.

[2]The center operates a teaching program for family practice residents. The residents work in the center on a rotating basis in which the total hours per week may vary from 82 to 131. This affects medical encounters per physician hour and, as a result, two figures are given, one for minimum coverage and the other for maximum coverage.

[3]Includes total hours of patient care provided by both full-time and part-time physicians. In most centers, part-time physicians provide the bulk of service. The total does not include psychiatric service at Trenton or administrative hours provided by MDs serving in full or part-time administrative positions at several centers.

general clinics entirely. In others, departments have been reorganized around the centers.

Under-utilization of physicians characterized almost all the centers. Additional study is needed to determine the reasons for this situation. However, causes are likely to be found in a complex of factors involving external relationships, internal center protocols and the original planning assumptions. Additionally, over-reporting of physician hours by the centers may be a factor.

Continuity of care has not been addressed as part of the comprehensive care picture at most of the health centers. Should health center physicians retain responsibility for hospitalized patients or is it sufficient for records to be sent and follow-up co-ordinated at the center? This suggestion needs an answer. Only one center has a formal agreement with a back-up hospital.

Self-sufficiency for most non-profit centers is unlikely without major national and state changes in health care financing. In addition to the dependency upon grants, further financial difficulties ensue from the large numbers of patients not covered by third-party insurers who cannot pay and inadequate billing and collection systems at the centers. Where funds are collected from Medicaid, the reimbursement rates appear to be lower than actual costs. Administrative inability at many centers to respond to Medicaid requirements and a disinclination on the part of the State Medicaid Office to offer technical assistance may be a complicating factor.

Recommendations

All health centers surveyed functioned independently of each other with a minimum of exchange of information or experience. It would seem appropriate for the New Jersey State Health Department to establish an Ambulatory Care Section in the Division of Community Health Services to help insure the delivery of high quality ambulatory care to medically underserved areas of the State. Functions of this new unit should include promulgating minimum standards, offering aid to health centers to achieve maximum reimbursement from Medicaid and other third-party payers, the development of a uniform data collection system for analytic purposes, standardization of grant proposals for state support and an evaluation of the state's support of health centers. A recent conference report on ambulatory medical care records contains a wealth of reference data that could be utilized.[3]

Health centers should be encouraged to employ full-time board-certified physicians to render care. At the same time, physician/patient encounters per hour should be increased to achieve effective utilization of costly physician time. To strengthen continuity of care, health centers should also seek formal, operational agreements with back-up hospitals.

Each health center should designate one full-time administrator with responsibility for all administrative functions at the center. These administrators should work together to adopt a uniform sliding scale for self-pay patients, to determine the patients' level of satisfaction, to examine the needs for plant expansion, to develop the role of community involvement and to assess the characteristics of care offered at the health centers.

Furthermore, the State Health Department should allocate funds for additional investigations and research as related to the above recommendations.

Epilogue

Despite the gloomy economic picture and probable future of the health centers, medical care has been influenced by activities undertaken by the health centers. As Shepperd comments in his paper on economic policy issues at neighborhood health centers, "The community health center program has been like the space program in producing innovation, inertia, trials and failures, and serendipitous outpouring of knowledge."[4]

References

1. AMA Task Force Report: *Community Health Delivery Programs.* Chicago, American Medical Association, 1973.

2. Freidson E: *Professional Dominance: The Social Structure of Medical Care.* New York, Atherton Press, 1970.

3. Murnaghan Jane H (ed): *Ambulatory Care Data: Report of the Conference on Ambulatory Medical Care Records.* Philadelphia, Lippincott, 1973.

4. Shepperd J D: Economic policy issues from the neighborhood health center's point of view. APHA Annual Meeting, November 1973.

5. Sparer G and Anderson A: Costs of services at neighborhood health centers, *N Engl J Med* 286:1241-1245, 1972.

6. Stoeckle J D and Candib L M: The neighborhood health center reform ideas of yesterday and today. *N Engl J Med* 280:1385-1391, 1969.

7. Strauss M A and Sparer G: Basic utilization experience of OEO comprehensive health services projects. *Inquiry* 8:4, 1971.

Urban Health Institute, East Orange

"Dear Doctor Bones": John Cochran, Military Surgeon*

Dr. John Cochran, a founder and third president of The Medical Society of New Jersey, was an eminent military surgeon during the Revolutionary War. Despite the hardships of this struggle, "Dear Doctor Bones" (as he was affectionately addressed in letters by Washington and Lafayette) was a favorite in the army because of his professional skill and convivial spirit. From a song he sang and from surviving anecdotes, we know that this sawbones brought out George Washington's rarely-shown sense of humor on at least one occasion. A letter inviting Mrs. Cochran to dine with him at Army Headquarters, West Point, in 1779, mentioned that wartime austerity proved that, lacking meat, anything — even apples — could be baked as pies and that one ate off iron rather than tin plates, but not because the labor of scouring made this transformation!

Born at Sadsbury, Chester Co., Pennsylvania, on September 1, 1730, of Scotch-Irish parents, John Cochran took his early schooling under the Rev. Dr. Francis Alison, a Presbyterian divine who subsequently became vice-provost of the College of Philadelphia (now the University of Pennsylvania). He was a schoolmate of Robert McKean, the latter a co-founder and first president of The Medical Society of New Jersey. Cochran studied "physic and surgery" as an apprentice to Dr. Thompson at Lancaster, Penna. During the French and Indian War (1754 to 1763) Dr. Cochran was a surgeon's mate with the British Army and saw action at Oswego and Fort Frontenac. In 1760 he married Gertrude Schuyler, widowed sister-in-law of General Philip Schuyler of Albany, N.Y.

Moving to New Brunswick, N.J., Dr. Cochran was among the seventeen original members of The Medical Society of New Jersey in 1766. Three years later he became its president and was reelected to that office in the following year. Volunteering for service at the outbreak of the Revolution, he collaborated with Dr. William Shippen, Jr., in preparing a plan for establishing military hospitals. In 1781, he succeeded him as Director General of the Hospital Department. Appointed Surgeon General of the Middle Department of the Continental Army in 1777, Cochran was commended by General Washington for his care of wounded and smallpox cases.

The war over, Dr. Cochran settled in New York, where, due to "a cheerful recollection of his past services," President Washington appointed him Commissioner of Loans (1790) with an office in Federal Hall. Retiring from this post to Schenectady, the doctor died there on April 6, 1807, following a paralytic stroke. Descendants of one of his three sons survive to this day.

Fred B. Rogers, M.D.

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*First Health and Nutrition Examination Survey, DHEW Pub. No. (HRA) 74-1219-1, National Center for Health Statistics, Rockville, Maryland. (This report indicates that approximately 95% of the children 1-5 years old had iron intakes *below* the standard set by the Food and Nutrition Board of the National Academy of Sciences.)

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769-

CASE REPORT

The rarity of rhabdomyosarcoma of the bladder in early childhood occasions the present report. The case also represents the first construction by ureteroileosigmoidostomy after cystectomy for this disease entity.

Rhabdomyosarcoma of the Bladder in Children

Steven Alexander, M.D., Bernard D. Pinck, M.D., and Michael Berson, M.D./Passaic

A two-year-old boy was admitted to the Beth Israel Hospital in Passaic, New Jersey, because of a lower abdominal mass. The patient's mother stated that the urinary stream was never forceful or of good caliber, but there was no history of gross hematuria.

On physical examination, a hard, movable mass, which extended from the lower mid-abdomen to the level of the umbilicus, was palpated. There were no intra-luminal masses palpable on rectal examination. The mass was felt to represent a distended bladder, but urethral catheterization produced only a small amount of urine, and the mass did not change.

The hemoglobin was 11 gm/100 ml. and the urinary sediment contained a few red and white blood cells per high-powered field. The blood urea nitrogen was 12 mg./100 ml. and the carcinoembryonic antigen was elevated.

Intravenous urography confirmed the presence of the lower abdominal mass and also disclosed a bilateral hydronephrosis. (Figure 1) Cystography demonstrated multiple lobulated radiolucent filling defects occupying the entire lower half of the bladder. (Figures 2 and 3) Urethrogram did not demonstrate any urethral abnormalities.

Cystoscopy was carried out, and the bladder was found to contain multiple irregular mounds of tissue projecting into the lumen. Landmarks were completely obscured by this tissue and the ureteral orifices could not be seen. The tumor masses resembled a "cluster of grapes." On bimanual examination, the suprapubic mass was movable. A transurethral biopsy of one of these masses was performed. Histological examination showed the presence of strap cells with large irregular nuclei, compatible with a diagnosis of rhabdomyosarcoma.

A barium enema study demonstrated extrinsic compression of the rectum by the mass. Chest x-rays, skeletal survey, and liver scan did not reveal any abnormalities.

Exploratory laparotomy exposed an enlarged bladder about the size of an orange, but abdominal exploration did not demonstrate any hepatic or lymph-node metastases.

A small cystotomy incision was made and one "grape-like" tissue was removed for frozen-section histological examination and the bladder was closed. The pathological report was sarcoma botryoides. A total cystectomy, prostatectomy and bilateral seminal vesiculectomy were carried out. Urinary diversion was achieved by means of a bilateral uretero-ileo-sigmoidostomy.

Figure 1 — Intravenous pyelogram: Lower abdominal mass with bilateral hydronephrosis.

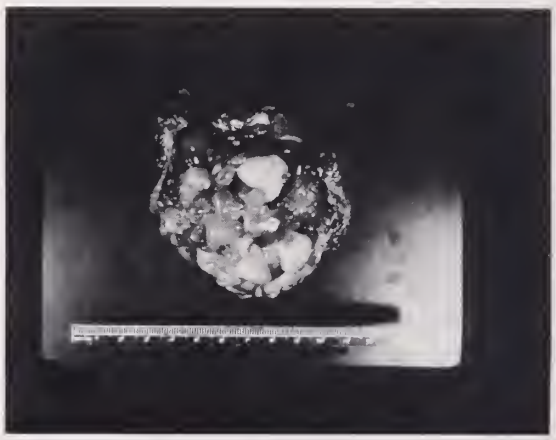
Pathological Examination

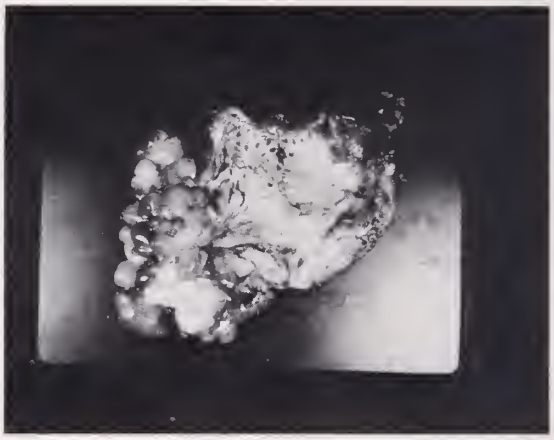
The interior of the bladder was filled by a large tumor mass which resembled a "bunch of grapes." (Figures 4 and 5) The numerous structures varied in size, consistency, and color; some were grayish pink and glistening and soft, while others were firm, gray white and opaque. The tumor had a conical stalk with a broad base and arose from the lower anterior wall. Below and around the stalk the bladder wall was indurated and thickened. The prostate gland and seminal vesicles were not involved by the tumor.

*From the Department of Urology of the Beth Israel Hospital, Passaic. Reprint requests may be directed to S. Alexander, M.D., 124 Gregory Avenue, Passaic, New Jersey 07055.

Figures 2, 3 — Cystogram: Multiple radio-lucent filling defects in the lower portion of the bladder.

Microscopically the tumor was composed of strap cells and eosinophilic cells with large irregular nuclei; mitoses were prevalent. (Figure 6) The pathological diagnosis was rhabdomyosarcoma.





Figures 4, 5 — Gross specimen: Large tumor masses resembling a "cluster of grapes."

The patient had a relatively smooth post-operative recovery until the eighth day when a wound evisceration occurred. Following secondary closure of the abdomen, the patient continued to improve. His appetite was restored and he gained ten pounds within two months after the operation. The urinary diversion has worked, and the patient is able to differentiate between the desire to pass urine and feces.

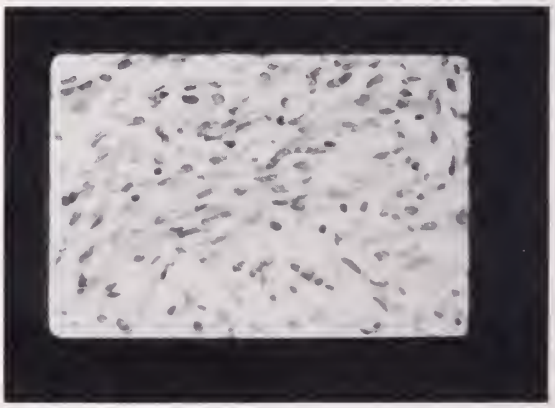


Figure 6 — Microscopic specimen: Strap cells with irregular nuclei: rhabdomyosarcoma.

Discussion

Tumors of the urinary bladder in the pediatric patient are rare. Of those described, rhabdomyosarcoma constitutes the most common bladder neoplasm in infancy and childhood.[1,2,10] Males are affected more frequently than females with a preponderance varying from 2:1 to 4:1.[2,3] Fifty to sixty percent of patients will present themselves with symptomatic complaints before two years of age,[3,4] while a majority of the remainder are uncovered by the fourth year of life.[1,2] Tumor has been reported in a six month old fetus and a three day old patient.

It is believed that these tumors are felt to arise from undifferentiated mesenchyma of the urogenital ridge and are capable of subsequent differentiation into myxomatous, fibrous and striated muscle tissue.[2,5,8] As such, they may be found in the vulva, vagina, cervix, uterus and prostate as well as the bladder.[7] Sixty-five percent of rhabdomyosarcomas of bladder origin are said to arise from the region of the trigone and internal urethral meatus.[3,4] Two alternate theories of origin — from existing adult skeletal muscle and from metaplasia from non-striated elements — are felt to be less tenable.[9]

Histologically, the lamina propria is replaced by myxomatous tissue containing stellate cells and a few polymorphonuclear leukocytes and lymphocytes. Some of the stellate cells show cross striations.[5] The demonstration of cross striations is not necessary to substantiate a diagnosis of rhabdomyosarcoma and may only be discovered after long, careful search.[4,9,11] Histologically recognizable myoblasts frequently do not have cross-striations, so failure to find these so-called "diagnostic features" should be expected and should not exclude the diagnosis.

Clinically, these children most often present with symptoms relating to vesical outlet obstruction: difficulty voiding, frequency, urinary retention, straining, and overflow incontinence.[1,13] Hematuria may occur and is presumably secondary to mucosal ulceration over the tumor. In girls, polypoid masses may be seen projecting down the urethra and at times out the external urethral meatus. Sloughing of portions of the intravesically projecting tumor mass may result in the passage of gelatinous tissue. Initial presentation may also be due to dysuria, infection and symptoms of uremia. When the gross appearance of the tumor resembles grape-like clusters, the term "sarcoma botryoides" is applicable.

On physical examination, a palpably distended bladder is evident in those patients with urinary retention or high residual urine levels. Following decompression of the bladder *via* a urethral catheter, a suprapubic mass remains. Rectal examination may also confirm the presence of an abnormal mass.

Intravenous pyelography often shows uni- or bilateral hydronephrosis, while cystography reveals multiple lucent filling defects. Cystoscopic examination demonstrates greyish, polypoid masses of tissue usually involving the bladder neck and trigone. Endoscopic transurethral biopsy of the tumor mass will confirm the diagnosis pathologically.

Rhabdomyosarcomas of the bladder may extend submucosally down the urethra through the membranous portion in the male and the whole length of the female urethra.[2,3,14] Less frequently, extension may proceed upward into the ureters.[2,3,14] The tumor tends to spread into the lumen with minimal infiltration and remains relatively superficial until late in the course of the disease.[3] Spread to regional lymph nodes and distant metastases to the lung, liver, kidney and adrenals is a late occurrence.[2-4,8,13,15] There is a tendency to local extension within the fixed bony pelvis.[8] Thirty percent of patients examined at post-mortem examination will have local recurrence without distant dissemination.[15] Of 70 patients with rhabdomyosarcoma of the bladder recently reviewed from the literature, 45 were found on follow-up to have reactivation of disease, and only 11 patients (24 percent) had documented widespread dissemination.[3]

Primary treatment has been aimed at early radical extirpative surgery.[1-4,8-8,10,11,13-16] Local excision has been characterized by a prompt and uniformly high recurrence rate.[1,2,12,13] The usual site of occurrence in the trigone and bladder neck area has precluded segmental resection.

Total cystectomy and prostatectomy with excision of the proximal half of the bulbous urethra in the male and total cystectomy and urethrectomy in the female, with or without removal of the uterus and anterior vaginal wall, should be performed.[1,2,7,10,17] In addition, removal of all tissue inside the labia majora, and possible excision of the vagina as well, has been recommended in view of possible tumor growth into the epithelium of the vulva adjacent to the external urinary meatus.[2] Frozen section examination of the transected ureters and urethra will help confirm adequate cut margins.[14] The role of additional pelvic lymph node dissection is not yet clear since lymph node metastases occur relatively late. Lymphadenectomy has therefore not been undertaken by some, and performed routinely by others![2,8,11]

Similarly, the value of adjunctive or palliative chemotherapy and/or radiotherapy is not entirely clear. Rhabdomyosarcomas are relatively radio-resistant and radiotherapy ineffective,[2,4,7,11,13,19] but irradiation has been given, for the occasional tumor which is radiosensitive, in order to reduce the size of the tumor.[7,8,21,22] This may facilitate subsequent surgical removal.

Vincristine sulfate, dactinomycin and cyclophosphamide have been the most effective chemotherapeutic agents, individually or in combination.[1,3,8,12,18,18,30] In a series of 74 children with malignant solid tumors treated with chemotherapy, Pratt reported all seven children with rhabdomyosarcoma treated with vincristine, dactinomycin and cyclophosphamide had a regression of the tumor growth. Combination chemotherapy appeared superior to a single agent.[28] James used dactinomycin and vincristine sulfate in eighteen children aged eight months to 16 years with unresectable malignant tumors and achieved objective tumor regression of from one to 12 months in all six patients with a diagnosis of embryonal rhabdomyosarcoma.[27] Furthermore, where radiotherapy and chemotherapy are anticipated, it has been shown that actinomycin D enhances or potentiates the radiation effects on certain malignant tumors, including rhabdomyosarcoma.[29]

The prognosis is neither affected by the site or size of the tumor, if localized to the bladder, nor the depth of muscle invasion.[1] The commonest cause of treatment-failure is local recurrence within the bony pelvis with death secondary to urinary tract obstruction, infection, and distant metastases. The dramatic improvement in survivals with combined surgical, radiotherapy and chemotherapy in children with nephroblastoma has prompted many to use a similar approach for rhabdomyosarcoma of the urinary bladder, particularly where the adequacy of surgical margins are suspect.[1,3,8,16] Bilateral uretero-ileo-sigmoidostomy has been employed as a method for supra-vesical urinary diversion in adults.[31,32] The case reported represents the first time this procedure has been carried out in a child.

Summary

A case of rhabdomyosarcoma of the bladder in a 2-year-old male has been presented. Presenting symptoms, physical findings, diagnosis and management have been discussed. Radical extirpative surgery in conjunction with chemotherapy and/or radiotherapy provides the main hope for long-term survival.

Bibliography

1. Ray B, Grabstald H, Exelby P R, and Whitmore W F: Bladder tumors in children. *Urol* II:426, 1973.

2. Williams D I, and Schistad G: Lower urinary tract tumors in children. *Brit J Urol* 36:51, 1964.

3. Tefft M, and Jaffe N: Sarcoma of the bladder and prostate in children. *Cancer* 32:1161, 1973.

4. Legier J F: Botryoid sarcoma and rhabdomyosarcoma of the bladder: Review of the literature and report of three cases. *J Urol* 86:583, 1961.

5. Mostofi F K, and Morse W H: Polypoid rhabdomyosarcoma (sarcoma botryoides) of bladder in children. *J Urol* 67:681, 1952.

6. Weaver R G, Card R Y, and Rueb R L: Polypoid rhabdomyosarcoma of the bladder. *J Urol* 85:297, 1961.

7. Cleveland J C, and Forsythe W E: Sarcoma botryoides: Report of three year survival. *J Urol* 89:683, 1963.

8. Clatworthy H W, Braren V, and Smith J P: Surgery of bladder and prostatic neoplasms in children. *Cancer* 32:1157, 1973.

9. Batsokis J G: Urogenital rhabdomyosarcoma: Histogeneses and classification. *J Urol* 90:180, 1963.

10. Jarman W D, and Kerealy J C: Polypoid rhabdomyosarcoma of the bladder in children. *J Urol* 103:227, 1970.

11. Jones C B, Jr, and Oberman H A: Rhabdomyosarcoma of the bladder; occurrence in childhood and in advanced age. *J Urol* 91:533, 1964.

12. Miller H C, Benjamin J A, and McEvoy R K: Sarcoma botryoides: a seven year survival. *J Urol* 101:567, 1967.

13. Bhansali S K: Sarcoma botryoides of the bladder in infancy and children. *J Urol* 87:871, 1962.

14. Holmes A: Rhabdomyosarcoma of the bladder. *Brit J Urol* 41:604, 1969.

15. Thompson I M, and Coppridge A J: The management of bladder tumors in children; a study of sarcoma botryoides. *J Urol* 82:590, 1959.

16. Ghawimi F, Exelby P R, Dango G J, Whitmore W F, Lieberman P H, Lewis J L, Mike V, and Murphy M L: Combination therapy of urogenital embryonal rhabdomyosarcoma in children. *Cancer* 32:1178, 1973.

17. Kafka V, Krohyper M, and Pollcek L: Rhabdomyosarcoma of the bladder in childhood; report of a successfully treated case. *J Urol* 96:210, 1966.

18. Pinkel D, and Pickren J: Rhabdomyosarcoma in children. *JAMA* 175:293, 1961.

19. Pack G T, and Eberhart W F: Rhabdomyosarcoma of skeletal muscle — a report of 100 cases, 1929-1949. *Surgery* 32:1023, 1952.

20. Nelson A J, III: Embryonal rhabdomyosarcoma: Report of twenty-four cases and study of the effectiveness of radiation therapy upon the primary tumor. *Cancer* 22:64, 1968.

21. Stable G D, and Dargeon H W: Embryonal rhabdomyosarcoma of the head and neck in children and adolescents. *Cancer* 3:826, 1950.

22. Cassady J R, Sagerman R H, Tretter P, and Ellsworth R M: Radiation therapy for rhabdomyosarcoma. *Radiology* 91:116, 1968.

23. Edland R W: Embryonal rhabdomyosarcoma — Five year survival of a patient treated by radiation and chemotherapy. *Am J Roent Rad Nuc Med* 99:400, 1967.

24. Pratt C B, Hustu H O, Fleming I D, and Pinkel D: Coordinated treatment of childhood rhabdomyosarcoma with surgery, radiotherapy, and combination chemotherapy. *Cancer Res* 32:606, 1972.

25. Grosfeld J L, Clatworthy H W, and Newton W A: Combined therapy in childhood rhabdomyosarcoma; an analysis of 42 cases. *J Ped Surg* 4:637, 1969.

26. Pratt C B, *et al.*: Combined therapy including vincristine for malignant solid tumors in children. *Cancer Chemomer Rep* 52:489, 1968.

27. James D H, Jr, Hustu O, Wrenn E L, and Johnson W W: Childhood malignant tumors in concurrent chemotherapy with dactinomycin and vincristine sulfate. *JAMA* 197:1043, 1966.

28. Sutow W W, Berry D H, Haddy T B, Sullivan M P, Watkins W L, and Windmiller J: Vincristine sulfate therapy in children with metastatic soft tissue sarcoma. *Pediatrics* 38:465, 1966.

29. D'Angio G J, Farber S, and Maddock C L: Potentiation of x-ray effects by actinomycin D. *Radiology* 73:175, 1959.

30. Pratt C B: Response of childhood rhabdomyosarcoma to combination chemotherapy. *J Peds* 74:791, 1969.

31. Pinck B D: Ureteroileosigmoidostomy. *J Urol* 102:37-41, 1969.

32. Pinck B D, and Alexander S: Ureteral diversion; An assessment of ureteroileosigmoidostomy. *Acad of Med of NJ Bulletin* 15:19-40, 1969.

124 Gregory Avenue, Passaic

1976 Golden Merit Award Ceremony

(Note change in date and time)

The 19th Annual Golden Merit Award Ceremony of The Medical Society of New Jersey will be held at 12 noon on Saturday, June 5, 1976, at the Cherry Hill Hyatt House, in conjunction with the 210th Annual Meeting. The membership is cordially invited. A list of the 1976 award recipients will appear in the May issue of *The Journal*, MSNJ.

A patient produced a troublesome complication after a questionable minor injury. The history was further confused by prevarication. The exact motivation for the patient's behavior is not known, but the possibilities are limitless. They range from malingering to psychosis. We must remember to be on the look-out for such cases.

Self-Inflicted Complication in an Accident Case

Harold M. Fischer, M.D./Elizabeth

Every physician in clinical practice encounters patients who either consciously or subconsciously exaggerate complaints. The unusual circumstances of the following case emphasize the need for a high index of suspicion especially in cases of liability and workmen's compensation.

Case Report

A 24-year-old warehouseman gave a history of an injury to his left elbow when it was caught between a hand truck and a wall of the corridor through which he was passing. He was obviously in severe pain and was unable to flex or extend his elbow, which was in a fixed position at 90 degrees. There was no swelling, discoloration, or other evidence of injury on inspection. X-rays were taken immediately, with some difficulty because of positioning, but there were no abnormal findings. The patient was given a sling, strong analgesics, and was advised to report daily. Re-examination two days later revealed tenderness, 90 degree flexion, moderate swelling and discoloration around the alleged site of injury. Re-x-rays were again negative.

A proteolytic enzyme was prescribed; and the next day there was massive swelling of the elbow, however, the rest of the upper extremity appeared grossly normal. His employer confirmed the nature of the injury as described by the patient at the initial examination. A consultant examined the patient and was unable to detect a radial pulse in the injured extremity. He advised hospitalization for arteriography and possible fasciotomy. After hospitalization, a vascular surgeon examined the patient within one hour after admission and found a full strong radial pulse. Conservative treatment was recommended and after three days, the patient was discharged. Follow-up treatment included whirlpool, enzymes, and a sling. He was encouraged to perform active exercises, but was unable to do so. Two days later, the patient phoned to report that neither he nor his "college associates" could feel the left radial pulse. One hour later, the hospital emergency room physician and two nurses confirmed the absence of the pulse in the injured extremity. He was admitted and a second vascular surgeon found a strong full radial pulse one hour after admission. Conservative treatment was continued in the same fashion for eight days with little or no improvement. Re-examination showed edema of the hand and the upper arm.

The patient, who was pleasant and cooperative, claimed to be a college student working to make his school expenses. He was anxious to return to school so that he could resume his studies and his participation on the basketball team of which he was the "high scorer." He became quite impatient during his hospitalization because of his failure to improve and on several occasions expressed an interest in signing out and going to other physicians for treatment because of our failure to benefit him.

In addition to the massive swelling, the patient complained of severe pain, which was initially treated with codeine and aspirin. He soon began demanding this medication more frequently. Stronger analgesics, including morphine sulfate intramuscularly, were administered at frequent intervals. Placebo medication was then substituted with satisfactory results. The next crisis was sudden onset of left-sided chest pain, dyspnea, and a convulsive seizure. After he was sedated, various studies, including physical examination, chest x-ray, electrocardiogram, brain and lung scan, were performed and were negative. While in the Radiology Department, he developed another severe seizure and was given additional sedation. The patient's family confirmed the fact that he had never had a convulsive disorder.

The next morning I arrived at the hospital earlier than my customary time and was informed by the patient that he intended to sign out of the hospital because "I didn't trust him." I tried to pacify him and, as I spoke to him, I removed his hospital gown as usual and noted that he had a two-inch ace bandage wrapped tightly around his arm at the most proximal portion of the left upper extremity. It was obviously obstructing both the arterial and venous circulation of the arm, which was massively swollen. I asked him why he had applied this "tourniquet" and he answered that his brother was a second-year medical student and had advised him to do so "because the doctors treating him did not know what they were doing." He then asked me to observe how much better his arm appeared and he began to move it freely in both flexion and extension and in pronation and supination. This was the first time in approximately three weeks that the patient had been able to have any degree of movement in his left elbow. I explained the possible consequences of his signing his release and requested him to stay on and permit me to continue treating him without any interference on his part, but he insisted upon leaving the hospital and signed the release.

As he was being wheeled through the lobby to a waiting vehicle, he developed a convulsive seizure and was taken to the emergency room where he was treated by an injection of a sedative and advised to remain for further treatment. The patient refused and signed his release for a second time. The patient has not been heard from since, although he called the insurance carrier about two weeks later to notify him that his arm was still massively swollen. He wanted to know "what they intended to do about it."

Further investigation of his alleged affiliation with a local college revealed that he had never been on the basketball team, a student in the college, or even an employee in the past or present.

Discussion

There are various motivations for such behavior: a desire to change jobs, to do less work, to get extra time off, to gain attention (from family and associates), or to obtain substantial insurance settlements. Some patients are negligent and fail to follow instructions, especially regarding medication.

Many such patients are treated symptomatically with doubts about the validity or extent of the complaints, but in anticipation that in due time they will recover when the provocative situations are resolved. Physicians frequently do not question the length of temporary disability or time lost from work. Some of us are hesitant to rush them back to work for fear of arousing their resentment. The extra cost, to employers, to local and state agencies, and to various insurance companies, makes it incumbent upon all of us to separate legitimate from questionable cases. Obviously, this requires a high index of suspicion in all cases of questionable etiology or motivation.

This case was the most puzzling, frustrating, and surprising that I have encountered in a fairly long experience of treating accident cases. It involves self-inflicted damage, following a questionable accident of minor magnitude. The motivation in this case is unclear and may never be known. Attention to suspicious patient behavior and alert observation of the house staff and nurses are very helpful in such cases.

230 West Jersey Street, Elizabeth

210th Annual Meeting — June 4-8, 1976

Cover Art Available

William Arthur Smith, the artist who designed and executed the special cover for *The Journal,* MSNJ, for the Bicentennial Year, has agreed to make the design available to a limited number of members of the Society on a "first-request" basis. The primary "oeuvre d'art" is a woodcut from which Mr. Smith will "pull" individual prints. Each print will be signed and thus will be an original work of art. If you are interested in having one of these for your office or home, please contact the artist directly to inquire about cost and to place an order: William A. Smith, Windy Bush Road, Pineville, Pennsylvania 18946.

Governor's Conference

Saturday, June 5, 1976

Primary and Secondary Prevention in Adult Medicine

SEE PAGES 251 AND 252

Please complete and return the questionnaire for use as data base in discussion of item on health education and health practices.

MEDICAL HISTORY

Chorea: A Case Report

Ronald D. Greenwood, M.D.
Boston*

Chorea occurred frequently in the nineteenth century. In the absence of treatment for streptococcal infection, chorea as a manifestation of rheumatic fever was common.

Dr. William Johnson, a practitioner in White House, New Jersey, was a frequent contributor to the medical literature especially in pediatrics. In August of 1858, he attended[1] a 13-year-old boy with chorea and recounted his experiences in the disease.

"The head was constantly in motion, and tossing in every direction, more frequently however from right to left, and backward and forward. There was so much latitude in these motions, as to attract the attention of persons sitting at their windows, as the boy and his mother passed their residences.

"I commenced the treatment of this case by prescribing 10 grains of calomel, to be taken this evening upon going to bed, and should it not purge in the morning, to be followed up with a dose of castor oil. I combined chloroform with an equal part of ol. dulcis, and directed the boy's spine to be bathed with it night and morning. Let him take one of the following pills every morning before breakfast, another in the middle of the forenoon, a third in the middle of the afternoon, and the fourth at bed-time:

℞: Sulph. zinci ext. lyosciami ā ʒ̄j M.

"28th, I called to see my patient today, and found a wonderful improvement in his case. The calomel had operated very freely, and the voluntary motion of the head is scarcely noticed today. His pulse is normal, and tongue clean. His mother says that improvement took place almost immediately upon taking the pills.

"Sept. 1st, The boy has recovered. I left him, however, another box of pills, and directed him to take one three times a day. I advised them to prevent a recurrence of the disease.

"*Remarks:* I have seen a number of cases of chorea, but never saw a case so speedily yield to remedial appliances before. In five days the boy was well, and able to return to his work. His employer, however, imposed a light burden on him at first.

"In the early part of my practice, I was in the habit of treating chorea by active purgation, followed by preparations of iron, and with very good success. I have never seen a case where death resulted directly from this disease.

"Among the cases of chorea which have fallen under my observation, one is of so singular a character as to deserve a passing notice. The subject was a young mulatto boy, the property of the late Reverend Mr. S. The affection was confined to the head, and consisted of rapid semi-rotary motion. This motion was so forcible that his master, who is a strong man, could not restrain it even by his most powerful efforts.

"The attacks of this rotary motion of the head lasted many minutes, and recurred at very short intervals. This case yielded to active purgation. But, soon after the boy's recovery, violent epistaxis occurred, which nothing would arrest but plugging the posterior and then the anterior nares. It was by these means arrested. Next followed on, after the lapse of a short period, destructive ulceration of the throat, which carried off the patient."

Both of these children probably had Syndenham's chorea; the second patient with epistaxis and "destructive ulceration of the throat" was a

*Dr. Greenwood, who is affiliated with the Children's Hospital Medical Center in Boston, Massachusetts, has been collecting historical information primarily relating to pediatrics for some ten years. This early report on chorea by a New Jersey physician was offered to *JMSNJ* as an item of medical history.

[1]Johnson W: Case of chorea. *Med Surg Reporter* 1:29–30, 1858.

clear example of streptococcal disease. Rheumatic fever with chorea is less frequent today and this note reminds us of the frequency of such destructive diseases less than a century ago.

Children's Hospital, 300 Longwood Avenue, Boston

210th Annual Meeting
June 4 - 8

Cherry Hill Hyatt House

Aerial View of Site

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

December 21, 1975

A regular meeting of the Board of Trustees was held on Sunday, December 21, 1975, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Annual Meeting . . . Agreed to sponsor the following resolution at the 1976 Annual Meeting:

Resolved, that the House of Delegates of The Medical Society of New Jersey recognizes and commends the outstanding service rendered to the annual meetings of this Society by Arthur Bernstein, M.D., during his tenure on the Subcommittee on Scientific Exhibits, the Subcommittee on Scientific Sessions, and the Committee on Annual Meeting.

AMA Seminar on Negotiations . . . Authorized those members of the Executive Committee who wish to attend the AMA Negotiating Seminar at Hillsdale, Michigan, April 26 to 30, to do so at MSNJ expense.

Medicaid — Complaint Registered with Public Advocate re August (1975) Implementation of Fee Reductions . . . Received the following as informative:

We have been advised by the Office of the Public Advocate that the action of the Department of Institutions and Agencies in this matter satisfies the letter, if not the spirit of the law, and that consequently the Department must cease further pursuit of this matter. The Public Advocate, however, is mindful of the inadequacies of the Administrative Procedure Act and the awesome capability for abuse of equity which it permits and will be seeking legislative amendment.

Component and Specialty Society Legal and Legislative Activities . . . Adopted the following position statement, as a consequence of recent Medicaid developments.

That the various specialty and component medical societies be urged to contact MSNJ prior to institution of legal or legislative action.

"What Constitutes Death in New Jersey" . . . Referred to the Committee on Definition of Death for review and study a recommendation from the Council on Mental Health that the Board approve the acceptance of S-3314 (an act concerning standards for the determination of death and supplementing Title 26 of the Revised Statutes).

Note: The purpose of this bill is to provide general standards for the determination of death in line with current medical thinking. It is intended to supplant the common law definition which was based entirely on circulatory and respiratory functions by providing that where a final determination by these standards is precluded because of the use of resuscitative and supportive means, the irreversible cessation of brain functioning may be used to make the determination.

AMA Board of Trustees Nominee . . . Received a report that at the recent AMA Clinical Convention the New Jersey Delegation was informed that nominations for the office of AMA Trustee will not be made until the AMA Convention in June.

Note: The above is in reference to Board approval (11/16/75) of placing the name of James S. Todd, M.D., in nomination for the position of AMA Trustee.

Social Security Number as a Universal Identifier . . . Directed that the Society's position of opposition to the universal use of a social security number as an identifier be transmitted to the local PSROs in New Jersey.

Management of Persons with Previously Irradiated Thyroid Glands . . . Considered a communication from the Radiological Society of New Jersey concerning the management of persons with previously irradiated thyroid glands, which included the following recommendations:

(a) Widely inform the public that any persons who had previous irradiation to the head and neck or chest regions as children or adolescents should apprise their personal physicians of this fact.

(b) They should have careful annual examinations of the thyroid gland performed.

(c) A thyroid scan should be obtained if there is any questionable finding.

(d) In all cases of verified previous irradiation, whether nodules are present or not, the patient should undergo thyroid suppression, according to the guidelines of the Endocrine Society. Daily thyroid medication should be given, presumably for the remainder of the patient's life.

. . . Empowered the Executive Committee to appoint a Committee to proceed along the lines suggested by the Radiological Society.

Meeting with Governor's Cabinet . . . Received a request from Governor Byrne that a meeting with him be held prior to January 15, 1976.

Board of Trustees Special Meeting . . . Directed that a special meeting of the Board of Trustees be scheduled for January 7, 1976 to meet with Commissioner of Insurance Sheeran (who had previously requested a three-hour audience with the Board at this December meeting).

January 7, 1976

A special meeting of the Board of Trustees was held on Wednesday, January 7, at the Executive Offices in Trenton. A summary of significant actions follows:

Professional Liability Program . . . Authorized the Executive Committee to appoint a director of the professional liability program and to otherwise implement the action of the special session of House of Delegates on December 14, 1975 (*JMSNJ* 73: 166, February 1976).

. . . Approved retaining Mr. Edward F. Meara and Mr. Joseph Katz as lobbyists for the professional liability program during the 1976 legislative year.

Public Relations . . . Authorized Mr. Johnson, Executive Assistant, to proceed with the public relations program concerning Medicaid prepared by the firm of Paolin and Sweeney (Board of Trustees' action 11/16/75, *JMSNJ* 73:58, January 1976).

MATS II Seminar . . . Approved cosponsorship for a MATS II seminar (Joint Commission on Accreditation of Hospitals) with the Hospital Research and Educational Trust of New Jersey, to be held in New Jersey, March 9 and 10.

Meeting with Commissioner Sheeran . . . Elicited the following concerning Commissioner of Insurance Sheeran's viewpoint on professional liability insurance and mandatory consultations in elective surgical cases: The Commissioner (who was present for this part of the Board meeting) felt that A-1552 must be enacted in order to create a competitive market. His concern was availability and not the cost of insurance. He advised that he did not use the term "monopoly" in a legal sense nor to describe a natural economic phenomenon. Concerning the matter of mandatory consultations, he indicated that it was not within his area of expertise and could not be discussed by him.

Note: A-1552 is an act concerning medical malpractice liability insurance, creating a New Jersey Medical Malpractice Reinsurance Association and a New Jersey Medical Malpractice Reinsurance Recovery Fund, and granting emergency powers to the Commissioner of Insurance. (Signed by the Governor 1/30/76 — C. 301:1975 Laws of NJ)

210th Annual Meeting
June 4-8, 1976
Cherry Hill Hyatt House

Professional Liability: An Introduction*

The term "professional liability" is commonly used today to refer to the problems primarily affecting medical practitioners and the health care industry. However, it is interesting to note other professions are beginning to evidence similar problems.

Recognizing today's conditions and the need to modify existing adverse trends, a comprehensive program recently has been developed by The Medical Society of New Jersey to solve problems as they arise and to implement desirable changes benefiting both patient and practitioner. The Britton Agency has been asked to take part in this program. Our participation will include preparation of a series of articles to provide information toward developing a better understanding of existing problems. We will review elements within the current program that can aid in combating some of these conditions. Finally, we hope to increase recognition of those elements which may result in a claim or suit, so that this problem possibly may be brought under some control.

Much has already been said about the increases in premiums and the actual unavailability of viable insurance coverage, with their effect on the practice of medicine. The need for changes in existing statutes has also been well documented. Therefore these and similar subjects will be commented on only as they relate to other material in this and future articles.

All members of the Medical Society may not *completely* understand the current Medical Society professional liability program; it appears some brief comments are in order. The program in its present form dates back to 1960 and is under the direction of the Committee on Medical Defense and Insurance, which:

- Keeps advised of developments affecting all forms of insurance or physician exposure and recommends revisions or new approaches to meet changing conditions
- Reviews questions regarding classification or coverage, and interprets policy contracts or provisions of the program
- Evaluates offerings from the insurance industry and others regarding existing or new services or insurance coverages
- Administrates the medical review program
- Reviews claims' data and other statistical information and participates in the development of rates.

The evaluation of statistical material and participation in development of future professional liability rates are demanding increased committee time. There appears to be some misunderstanding of the extent of statistical material available for rate development and other purposes. It is probably the most comprehensive available in any state. It encompasses information dating back to 1960 and includes data obtained from the three insurance companies who have provided, or currently provide, professional liability insurance to Medical Society members. It is continuously updated so that changes in developments and trends can be recognized.

While there are many studies evaluated by the committee it may be of general interest to examine one of them — the ratio of claim files and suits as compared to the number of doctors insured under the program. For many years these ratios remained relatively constant. It could be anticipated one claim would arise annually for every ten doctors insured under the Medical Society program and one out of twenty doctors would be sued annually. It must be realized that this is an overall picture and that actual experience will vary by specialty. Recent studies indicate a distinct change in this area. The carrier providing coverage during the period 1968 to 1971 (Employers Insurance of Wausau) is now averaging one claim annually for every 7.2 insured doctors and one suit for every 17.6 insured doctors. The company currently covering the program (Chubb & Son) is averaging one claim for every 6.8 insureds and one suit for every 15.2 insureds. And additional claims and suits are continuing to appear. The following information, developed in mid-1975, is based on data applicable to Employers of Wausau, and is quoted to illustrate the variables among classes of practice.

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*This item has been prepared by Joseph A. Matt, CPCU, of the Joseph A. Britton Agency, in accordance with a request from the Special Session of the House of Delegates (12/14/75) — see *JMSNJ* 73:166 (February) 1976.

Class	*Ratio of Suits*
1	1 Claim for each 13.3 insured doctors 1 Suit for each 32 insured doctors
2	1 Claim for each 9.99 insured doctors 1 Suit for each 31.4 insured doctors
3	1 Claim for each 10.7 insured doctors 1 Suit for each 21.9 insured doctors
4	1 Claim for each 4.6 insured doctors 1 Suit for each 11.7 insured doctors
5—Ortho.	1 Claim for each 2.1 insured doctors 1 Suit for each 3.9 insured doctors
5—Neuro.	1 Claim for each 1.2 insured doctors 1 Suit for each 3.5 insured doctors
6	1 Claim for each 17.5 insured doctors 1 Suit for each 101.5 insured doctors
7	No Claims or Suits
0	1 Claim for each 21.2 insured doctors 1 Suit for each 53.1 insured doctors

Overall—1 Claim for each 7.2 insured doctors
1 Suit for each 17.6 insured doctors

In view of the adverse trends already indicated by Chubb & Son, it would appear a study of their experience conducted two years hence will indicate a substantially greater number of claims and suits in comparison to the numbers of doctors insured, than illustrated for Employers of Wausau. It should be recognized that this trend is not unique to New Jersey.

In addition to changes resulting from liberalization of statutes or attitudes of the courts, there are a number of reported reasons for these developments. By concentrating on personal elements only, we find the following are influential:

(a) Factors allegedly outside the control of medicine reportedly include:

- A supposed decline in the public's regard for physicians
- An increase in public education regarding medical care
- An increase in use of litigation to resolve questions of alleged wrongdoing

(b) Factors allegedly within control of the medical profession reportedly include:

- Increased complexity of medical practice
- Current system of patient care
- Poorly trained physicians
- Bad medicine

(c) Factors allegedly within control of the individual practitioner reportedly include:

- Deterioration in doctor-patient relationship
- Negative medical care experiences by patients
- Failure of patients to understand limitations of medical care

No attempt has been made to compile an all-inclusive list or to cite the factors in order of importance. Newspaper and magazine articles widely report that the claims submitted to date reflect only the "tip of the iceberg" — that only a small fraction of claims have been submitted by patients suffering medical injury. While medical injury is not synonymous with liability, the groundwork is laid for a further increase in the numbers of claims and suits which may arise. Hopefully the efforts being extended by the health care industry, including recognition by the individual practitioner of the elements under his control, will result in a slow-down or reversal in the number of reported claims and suits and their overall cost.

Attention: Physician Readers

Governor's Conference Questionnaire

One item on the agenda for the 2nd Annual Governor's Conference, which will be held on Saturday, June 5, during the 210th Annual Meeting of MSNJ, relates to the current status of health education and a proposed program on that subject for physicians.

The Department of Preventive Medicine and Community Health of the New Jersey Medical School, CMDNJ, has prepared the following questionnaires, which they ask our physician readers to complete, to be used as a guide in determining the current amount of physician involvement in health education and the health practices of the physicians themselves. The data collected will be included in the presentations at the Conference.

Please clip the following page, complete, and return it to:

Donald B. Louria, M.D., Professor and Chairman
Department of Preventive Medicine and Community Health
New Jersey Medical School, CMDNJ
100 Bergen Street
Newark, New Jersey 07103

See Preceding Page

(1) Do you spend time in school curriculum development?

Yes _____ No _____

If yes, how many hours per year?

(2) Do you spend time in school health education programs?

Yes _____ No _____

If yes, how many hours per year?

(3) Do you spend time in health education programs in your community?

Yes _____ No _____

If yes, how many hours per month?

(4) Do you feel that your patients could benefit from additional health education sessions?

No, I do not _____ Yes, I do _____

If yes, do you feel you and your colleagues could use the services of a community health educator working in collaboration with the county medical society? Yes _____ No _____.

Please encircle the number *preceding* the appropriate response:

(1) Sex: 1. Male 2. Female (5)

(2) Age: 1. Under 20 2. 20-34 3. 35-49 4. 50-64 5. 65+ (6)

(3a) Do you smoke cigarettes? 1. Yes 2. No 3. Used to, but stopped (7)

b) If yes, on the average now many cigarettes do you currently smoke per day?
1. Non-smoker 2. Less than 5 3. 5-9 4. 10-19 5. 20 or more (8)

c) If you currently smoke, how frequently do you use filter tips?
1. Always 2. Sometimes 3. Never 4. Non-smoker (9)

(4) How frequently do you use seat belts:

	All the time	Usually	Sometimes	Never	Not Applic.	
a) when driving?	1	2	3	4	5	(10)
b) as a passenger in the front seat?	1	2	3	4	5	(11)
c) to restrain children passengers	1	2	3	4	5	(12)

(5) Please indicate if you have ever had each of the following tests. If you have taken any of these tests, indicate whether the test was last performed during the past two years or more than two years ago.

Test	Never was tested	Last tested more than 2 years ago	Last tested within the past 2 yrs.	
a) Blood pressure	1	2	3	(13)
b) Glaucoma (tonometry)	1	2	3	(14)
c) Blood cholesterol	1	2	3	(15)
d) Anemia	1	2	3	(16)
e) Blood in the stool	1	2	3	(17)
f) (men only) prostate exam	1	2	3	(18)
g) (women only) pap smear	1	2	3	(19)
h) (women only) x-ray exam of breasts (for lumps)	1	2	3	(20)
i) (women only) physical exam of breasts by physician	1	2	3	(21)

(6) (women only) During the past year, how frequently have you examined your own breasts for lumps?
1. Never 2. 1-2 times 3. 3-5 times 4. 6-11 times 5. 12 or more (22)

Therapeutic Drug Information Center*

The Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associated Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m. — telephone (212) 622-8989 or 636-7535. The following are questions and answers handled by the Center recently.

1. The lay press recently reported on the use of oral candicidin for the treatment of prostatism. Please supply information.

Candicidin (Candeptin,® Vanobid®) is widely used for the topical treatment of vaginal moniliasis. An oral formulation has been marketed in the Philippines since February 19, 1975, for the treatment of prostatism, but clinical studies with this formulation in the United States have been discontinued pending final input and direction from the FDA.[1]

Recently much publicity has appeared concerning the use of oral candicidin for the treatment of prostatism. The exact mechanism of candicidin's action in prostatism has not been elucidated, but it appears that candicidin modified prostatic cholesterol and this may influence the size of the prostate.[2] Shaffner and Gordon[3] suggested that oral candicidin and other polyene macrolides exhibit potent hypocholesterolemic activity, perhaps by inhibition of cholesterol absorption from the gastrointestinal tract.

Keshin[4] treated 92 patients of a 120-patient group who had signs and symptoms of benign prostatic hypertrophy with 300 mg of oral candicidin daily for a minimal period of five months. Of the 92 patients, 87 normally would have required surgery. After candicidin therapy, 64 patients (73 percent) were able to avoid surgery for as long as 18 months with no harmful effects. Most of the patients showed subjective and objective improvement, including marked reduction in residual urine. Those patients who did not respond to therapy and required surgery, showed no adverse effects. Those patients who underwent surgery had diminished bleeding. The author noted that, usually, patients must receive full dosage for at least three months before objective improvement can be noted.

In a controlled study, Orkin[5] treated 43 patients suffering from benign prostatic hypertrophy with oral candicidin or placebo. With candicidin at a dosage level of 300 mg daily, for periods longer than three months, nearly 90 per cent of the patients showed partial to complete remission of their subjective symptoms, improvement in residual urine retention and urinary flow rate. Over one-third of patients showed a decrease in prostate size. The only adverse effect noted was occasional gastric upset.

Sporer, *et al.*[2] treated 41 patients in a double-blind study with either 300 mg candicidin daily or placebo. Overall subjective improvement was noted in 78.1 per cent of treated patients compared to 10 per cent of patients given a placebo. Symptoms such as terminal dribbling, hesitancy, nocturia, intermittency, and diurnal frequency were improved. However, no change was noted in any of the treated patients with regard to prostate size. The only untoward effects reported were gastrointestinal in nature.

In conclusion, a few studies have indicated that oral candicidin has been of value in the treatment of prostatism. However, much more data are needed to determine the true role candicidin will play in the treatment of this condition.

References

[1]Personal communication: HW Gordon, Schmid Laboratories, Little Falls, N.J. 07424.

[2]Sporer A, *et al*: Candicidin: Physiologic effect on prostate. *Urol* 6:298-304, 1975.

[3]Schaffner CP and Gordon HW: The hypocholesterolemic activity of orally administered polyene macrolides: *Proc Natl Acad Sci* 61:36-41, 1968.

[4]Keshin JG: Effect of candicidin on the human benign hypertrophied prostate gland. *Int Surg* 58:116-122, 1973.

[5]Orkin LA: Efficacy of candicidin in benign prostatic hypertrophy. *Urol* 4:80-84, 1974.

2. In response to numerous daily questions concerning naproxen (Naprosyn®, Naxen®) the following information is provided.

During the past few years, naproxen, a non-steroidal anti-inflammatory drug developed by Syntex Research, has been commercially available in Europe, Canada, and South America. At the present time, it is under investigation in the United States by Syntex Laboratories.

Naproxen has been shown to be effective for the symptomatic treatment of rheumatoid arthritis and also as an analgesic. Comparison studies revealed that in therapeutic doses naproxen's effectiveness was equivalent to high doses of aspirin or indomethacin, and produced significantly lower incidence of gastrointestinal side effects than aspirin and fewer side effects than indomethacin.[1,2] Naproxen also has been shown to be superior to ibuprofen (Motrin®) and

*This month's column was prepared by J. M. Rosenberg, Pharm. D., W. A. Simon, Pharm. D., P. Sangkachand, B.S., and H. Kirschenbaum, B.S., Brooklyn College of Pharmacy, LIU.

fenoprofen,[3] another similar compound. The drug also appears to possess a corticosteroid-sparing effect, thus reducing the need for systemic corticosteroids in patients stabilized on them.[1,3]

Diamond, *et al.*[1] conducted a multicenter, double-blind, cross-over study of naproxen (500 mg/day) and aspirin (3.6 gm/day) in 119 adults with active definite or classical rheumatoid arthritis. Each drug was given in sequence for a six-week study period. The authors found that naproxen in a dose of 250 mg twice daily showed similar efficacy to 3.6 gm aspirin (900 mg four times daily), and was significantly better tolerated. Fewer patients who received naproxen terminated their six-week study period than those who received aspirin.

Kogstad[2] conducted a controlled, double-blind, cross-over trial in 30 patients with classical or definite rheumatoid arthritis. Each patient received a four week regimen of naproxen (250 mg twice daily) and an additional four week regimen of indomethacin (50 mg three times daily). Of the 26 patients who completed the study, 11 preferred naproxen, 9 preferred indomethacin, and 6 patients evaluated the drugs as equally efficient. In the total clinical evaluation, naproxen was best in 7 patients, indomethacin was best in 5 patients, and in 14 patients there were no definite differences between the two drugs. Side effects were more frequent and severe in patients who received indomethacin compared to those who received naproxen. The latter consisted only of mild to moderate gastrointestinal complaints in one or possibly two patients. Indomethacin side effects consisted mainly of headache, dizziness, and gastrointestinal symptoms.

In another study, naproxen, in 2 doses (500 mg and 750 mg/day) and indomethacin (100 mg/day) were administered to 23 rheumatoid arthritis patients in a double-blind, cross-over trial. Both drugs were significantly more effective than placebo, but there were no significant differences between naproxen and indomethacin, or between the 2 doses of naproxen.[4]

In a double-blind study two weeks' treatment with fenoprofen 2.4 gm daily, ibuprofen 2.4 gm daily, and naproxen 750 mg daily were compared in 25 outpatients with rheumatoid arthritis. Antirheumatic activity tended to be greatest with naproxen and least with ibuprofen.

Patient preference was strongly in favor of naproxen. Side effects necessitated withdrawal of treatment in 4 patients on ibuprofen and in one who received naproxen.[3]

Flores and Rojas[5] conducted a study in 28 adult ambulatory patients with classical or definite active rheumatoid arthritis to determine if naproxen possessed any steroid sparing effects. The patients had been stabilized for at least six months previously with oral paramethasone acetate, a corticosteroid, plus various analgesics and/or non-steroidal anti-inflammatory agents. During the initial period of the study, only paramethasone was given to the patients. All other concomitant therapy was replaced by placebo so that the patients' corticosteroid dosage could be readjusted until the smallest amount sufficient to control the disease was found. During the second period, using the double-blind method, either naproxen (400 mg/day) or placebo was administered at random. The use of naproxen resulted in a 57 percent average reduction in the dose of the corticosteroid, compared to 21 percent for the control group (placebo). The authors concluded that naproxen possessed a significant corticosteroid-sparing effect with negligible toxicity.

It also has been shown that naproxen is an effective analgesic in patients with severe or moderate postoperative pain resulting from orthopedic, dental, and other procedures. Naproxen 400 mg, given in a single dose, was found to provide analgesia comparable with that provided by 75 or 150 mg of oral meperidine. Naproxen 600 mg provided successful analgesia more frequently than naproxen 400 mg or propoxyphene 65 mg.[3]

In conclusion, the investigational drug naproxen appears to have effective anti-inflammatory and analgesic properties. It also apparently possesses fewer side effects than aspirin, indomethacin, or ibuprofen.

References

[1]Diamond H, *et al*: Naproxen and aspirin in rheumatoid arthritis: A multicenter double-blind crossover comparison study. *J Clin Pharmacol* 15:335-339, 1975.

[2]Kogstad O: A double-blind cross-over study of naproxen and indomethacin in patients with rheumatoid arthritis. *Scand J Rheumatol* Suppl, 2:159-163, 1973.

[3]Brogden RN, *et al*: Naproxen: A review of its pharmacological properties and therapeutic efficacy and use. *Drugs* 9:343-351, 1975.

[4]Anon.: Naproxen. *Inpharma* 15:12, 1975.

[5]Flores JJB and Rojas SV: Naproxen: Corticosteroid-sparing effect in rheumatoid arthritis. *J Clin Pharmacol* 15:373-377, 1975.

3. Please supply me with information concerning the use of low-dose insulin in the treatment of diabetic ketoacidosis.

Various regimens have been used to treat diabetic ketoacidosis which call for high doses of insulin.[1] Usually 50-200 units of insulin are given initially with portions given intravenously and either subcutaneously or intramuscularly, followed by further dosages of insulin until blood sugar levels are reduced to satisfactory levels.

Recently, several investigators have found low-dose insulin promising for the management of diabetic acidosis and ketosis in cases which were or were not complicated by coma.[1,2,3]

Semple and coworkers[1] treated 16 patients: 13 severely uncontrolled diabetics and 3 newly diagnosed hyperglycemic non-ketotic diabetics, with continuous intravenous infusion using small doses of insulin. The severely uncontrolled diabetics had plasma glucose levels between 354 and 1270 mg/100 ml and were treated with a mean loading dose of 6.5 units of intravenous insulin per hr. The mean rate of fall of plasma glucose for six of the 13 patients who received 8-12 units of insulin per hr. was 114 mg/100 ml/hr. This rate of fall was not significantly greater than that which occurred in the seven patients who received 2-4 units of insulin per hr. The three non-ketotic patients who received continuous infusion of 0.5-5 units of insulin per hr. had plasma glucose decline in a linear manner at infusion rates of 1 unit per hr. and above, with a mean decline in plasma glucose of 115 mg/100 ml/hr.

Kidson, *et al.*[2] treated 11 ketoacidotic diabetics who had a collective mean serum glucose level of 514 mg/100 ml, using

continuous low dose intravenous infusion and mean serum insulin was raised to 83μ/ml, which had a therapeutic effect not enhanced by higher infusion rates. This therapy produced a continuous decline in plasma glucose at a rate of 75 mg/100 ml/hr. Ten of eleven patients recovered within eight hours. The other patient did not recover within eight hours, but made a slow recovery after beginning subcutaneous insulin.

Page and colleagues,[3] in a multicenter study, treated 38 patients having diabetic coma with an average dose of 7.2 units of insulin per hr administered by intravenous infusion. All except one profoundly shocked patient, who died, recovered rapidly. The mean fall in plasma glucose was 58 percent four hours after the start of insulin.

Shaw and associates[4] utilized low-dose intramuscular insulin in patients who presented with ketoacidosis. Treatment was successful in four of five patients, but a fifth patient responded only to conventional high doses of insulin therapy.

Soler, *et al.*[5] administered low-dose insulin to 36 diabetic patients who were severely ketoacidotic: 18 received insulin by the intramuscular route and the other 18 received insulin by continuous intravenous infusion. Comparisons were made with 25 previously treated ketoacidotic patients who were given large intravenous boluses of insulin. The authors noted a possible pitfall using low-dose intravenous infusion in that when this regimen was used, there was a long lag (9 hours) between correction of blood-sugar and correction of the acidosis, which was longer than the lag obtained by the other two regimens (I.M. route group and large I.V. bolus group). They warned that this pitfall must be recognized, but suggested that although low-dose insulin regimens are effective in most cases, they are not clearly superior to conventional treatment with large doses of insulin.

Several advantages have been suggested in support of low-dose insulin when compared to conventional dosages.[2] Low-dose insulin is simple to administer and control as its dosage can be more easily regulated by a pump or pediatric drip set.

Several potential disadvantages to this low-dose technique have been postulated. It is believed that progressive damage to insulin may occur in the carrier solution over the period of infusion,[2,6] but this problem was not found to be of practical significance.[2,3] Another problem is a possible absorption of insulin onto glass and plastic systems utilized for the delivery of the insulin infusion, thus reducing the dose the patient would receive.[2,6] Serum albumin has been added to these solutions to decrease this effect.[2,6] However, no significant clinical difference was found in patients treated with low-dose insulin infusion, whether or not albumin was added to the carrier solution.[3]

In conclusion, the favorable responses to low doses of insulin suggest a need for the reappraisal of currently held theories about the role of insulin resistance in diabetic ketoacidosis. As always, diabetic coma remains a medical emergency and should be treated as such. Although further experience with this regimen is necessary to determine its proper role in the treatment of diabetic ketoacidosis, the use of low-dose insulin appears to be a logical method and a promising development in the treatment of this life-threatening disease.

References

[1]Semple PF, *et al:* Continuous intravenous infusion of small doses of insulin in treatment of diabetic ketoacidosis. *Brit Med J* 2:694-698, 1974.

[2]Kidson W, *et al*: Treatment of severe diabetes mellitus by insulin infusion. *Brit Med J* 2:691-694, 1974.

[3]Page M, *et al*: Treatment of diabetic coma with continuous low-dose infusion of insulin. *Brit Med J* 2:687-690, 1974.

[4]Shaw KM, *et al*: Small doses of intramuscular insulin in the treatment of diabetic "coma." *Lancet* 1:1115-1116, 1974.

[5]Soler NG, *et al*: Comparative study of different insulin regimens in management of diabetic ketoacidosis. *Lancet* 2:1221-1224, 1975.

[6]Semple P, *et al*: Carrier solution for low-level intravenous insulin infusion. *Brit Med J* 228-229, 1975.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The new Newark campus of the College of Medicine and Dentistry slowly is coming into use. Our Health Sciences Library was opened last summer, and the Community Mental Health Center and CMDNJ-New Jersey Dental School buildings now have been occupied. The central power plant also is operational. That leaves the basic-science building, a block-long, nine-level tower, and the 465-bed college teaching hospital to be completed. We hope the former will be available by the end of the year to permit relocation of CMDNJ-New Jersey Medical School and CMDNJ-Graduate School of Biomedical Sciences from their interim quarters. Work on the hospital began a year ago; completion and occupation is projected for late 1978.

Even the severe budget crisis precipitated by New Jersey's own fiscal problem cannot dampen the expectations that the new campus inspires. It and our CMDNJ-Rutgers Medical School, whose science building and laboratories were dedicated in 1970, symbolize the beginning of a new era for medical and dental education, and research and service in the state. For New Jersey's people, this represents a leap forward in needed health care resources. For the practicing professionals throughout the state, it means a new source of support, enlarged opportunities for referral, and additional resources for continuing education.

It is planned to dedicate the entire $189-million complex to the health of the people of New Jersey at a ceremony scheduled for next May 10. You are most cordially invited to join us on the occasion, which surely will be as memorable as we hope it will be festive and inspiring.

The new Community Mental Health Center in Newark is an integral part of the Department of Psychiatry at CMDNJ-New Jersey Medical School. Formerly located in the College's Newark teaching hospital, Martland Medical Center, which will continue to house a 26-bed, in-patient unit and around-the-clock, walk-in crisis intervention service, the center's new home is a modern $6-million split-level structure at Bergen Street and South Orange Avenue.

With its staff of psychiatrists, psychologists, psychiatric nurses, social workers, and other mental health clinicians the facility is geared to a variety of out-patient treatment, rehabilitation, and educational programs for all age levels. Its services include scheduled short-term visits for treatment and therapy for patients and families, house-calls, when necessary, and a special day-hospital for those requiring daily therapy. For the day-hospital and other group therapy programs, there is a partial hospitalization area of four self-contained units, each with its own kitchen, eating area, lounge, reading room, and treatment rooms.

The center, whose service area covers more than half of Newark's total population, is already administering to more than 300 out-patients (about 500 patient-visits) per month, and about 30 day-hospital patients. In time both components are expected to expand their activities considerably.

There has been heartening growth, too, at the southern end of the CMDNJ axis — Raritan Valley Hospital in Green Brook, the primary teaching hospital of CMDNJ-Rutgers Medical School. Typical of its progress as both a community institution and, increasingly, as a place for referrals since the hospital came under the College's control in 1970 is the outpatient department, which was opened in 1973, and an ambulatory-care wing which is part of a $4.2-million expansion program. In 1974, its first full year of operation, the OPD recorded 5,315 patient-visits, and that figure nearly doubled in 1975. Also as a result of the building program, patient figures in physicial therapy, recorded at 4,851 in 1972, quadrupled to nearly 17,000 last year. There have been marked increases in emergency room visits, admissions, in-patient days, and referrals from community physicians.

The presence of the CMDNJ-Rutgers Medical School faculty has produced a number of firsts for the hospital. For example, open-heart surgery was first performed there on August 27, 1974. A kidney dialysis and transplant program was initiated recently. A pediatric special-care unit has just been opened, and the hospital now conducts residency programs in medicine, surgery, pediatrics, and pathology. CMDNJ-Raritan Valley Hospital's Auxiliary (who had raised $20,000 for that purpose) recently presented the hospital with a special ambulance for transporting high-risk patients between institutions.

In recent months affiliation contracts have been signed with Perth Amboy General and Somerset Hospitals in the pathology department for students of Rutgers Medical School, and with the Kessler Institute for Rehabilitation for training students of New Jersey Medical School in physical medicine and rehabilitation.

CMDNJ-Rutgers Medical School has inaugurated two new developmental programs for children. One, in the psychiatry department, attempts to upgrade the learning skills of minimally brain-damaged children through individual training sessions, with attention to personality and social problems. The other, in the pediatrics department, is for children up to three years of age with such disabilities as cerebral palsy, mental retardation, and epilepsy. The program emphasizes parental education and training, and concentrates on personal-social, language, cognitive, motor, and self-help skills.

June 4-8, 1976
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Prevention and Treatment of Tuberculosis: Recommendations

Prepared as a "Guideline for Physicians" by L. Fred Ayvazian, M.D., Professor of Medicine, Waymon C. Lattimore, M.D., Assistant Professor of Medicine, and Lee B. Reichman, M.D., Associate Professor of Medicine, New Jersey Medical School, CMDNJ. Dr. Ayvazian is also Chief of the Pulmonary Section, VA Hospital, East Orange; Drs. Lattimore and Reichman are affilated with the Pulmonary Division of Martland Hospital, Newark. This material shortly will be available in brochure form from the American Lung Association of New Jersey, 2441 Route 22 West, Union, New Jersey 07083.

Tuberculosis and the Tuberculin Skin Test

Both instances of (1) positive skin tuberculin reactivity and (2) the clinical disease tuberculosis represent infection with the tubercle bacillus (mycobacterium tuberculosis). The majority of tuberculin reactors remain healthy, controlling their infections through normal immunologic mechanisms. However, the bacilli may survive hidden and indolent; thus, all individuals with positive tuberculin skin tests remain at increased lifelong risk of developing active and destructive tuberculosis which requires prolonged chemotherapy to suppress contagion and to restore health.

The importance of differentiating inapparent and apparent infection is sharpened by continuing evidence that the "disease" tuberculosis is preventable among those asymptomatically infected (healthy positive skin-test reactors) by a simple regimen of relatively short-course one-drug therapy.

Chemoprophylaxis and Preventive Therapy

The term "chemoprophylaxis," properly used, implies the protection of uninfected (tuberculin negative) individuals dangerously exposed to contagious tuberculosis. Such persons are usually identified as close contacts of the index case, breathing the same air containing suspended tubercle bacilli in droplet nuclei for prolonged intervals. Studies by Riley suggest that approimately 500 hours of exposure are required to cause infection, although the skin test does not usually become reactive for six to eight weeks following infection. This lag makes impossible an immediate determination as to which contacts early have been infected. Therefore, all contacts are treated with isoniazid; double or triple-drug therapy is initiated for the index case (who thus rapidly is rendered no longer infectious).

The INH-treated contact is skin-retested after three months and should he remain tuberculin-nonreactive, and the contact has been broken, the INH regimen may be terminated. The preventive therapy program of supplying INH for 12 months to individuals with positive skin tests, but with no evidence of clinical disease, is actually the treatment of infection. INH is the only drug recommended for this program. The lifelong risk of becoming diseased with tuberculosis is all but eliminated if the tuberculin reactor adopts this recommendation. The risk of INH hepatotoxicity is limited to 12 months.

For those under age 35, the hazards of hepatotoxicity or other INH reactions under a properly monitored regimen have been overemphasized. In some circumstances, INH medication for the elderly is wise, and, under precautions, safe. Firstly, the patient and his family require counseling to make clear the therapeutic need. Secondly, the medicated individual must be checked for the earliest evidences of INH toxicity at four-week intervals and his prescription renewed for each of the 12 months.

For tuberculin testing, the Mantoux (intradermal) technique is recommended, always using 5 tuberculin units (TU) of Purified Protein Derivative (PPD) stabilized with Tween 80 (to preserve potency of the antigen). The skin site is examined at 48 and 72 hours, and the test read in actually measured millimeters of palpable induration independent of flat erythema. Measurements of 10mm or more are interpreted as positive (but reported not as "positive" but in exact diameter), and those of less than 5mm as negative. Reactions ranging between 5 and 9mm, referred to as "doubtful," may be of importance if subsequent tests show increments of 6mm or more. This implies recent conversion from negativity, and similarly measured decrements indicate non-reactivity. Common errors in testing include subcutaneous (rather

than intradermal) injection of tuberculin, and leakage of the solution back from the needle puncture tract. Nonreactive skin tests may occur during the early weeks of infection (before detectible hypersensitivity develops) and in conditions associated with anergy.

In addition to the syringe-and-needle (Mantoux) technique, multiple-puncture and jet-injection devices are used in screening programs. The Mantoux, however, remains the definitive diagnostic test.

The United States Public Health Service, the American Thoracic Society, and the American Lung Association endorse the recommendation that individuals under age 35 who show tuberculin skin reactivity but no illness or chest roentgenographic abnormality be urged to accept INH medication. INH is used as an unaccompanied drug only in this isolated setting. The cost of INH is below that of aspirin and amounts to less than one dollar per month per patient.

Priority Groups for Chemoprophylaxis

Liver damage is the most serious reaction to INH but it is rare in individuals at ages under 35 years and limited to the 12 months of its "preventive" use, while the risk of developing tuberculosis among untreated tuberculin skin-reactors is lifelong. The highest priorities for INH use among tuberculin reactors of all ages are listed according to factors enhancing the possibility of developing active tuberculosis.

The priority groups, as listed by the American Thoracic Society, are:

1. Household members and other close associates of persons with recently diagnosed tuberculosis.

2. Positive tuberculin skin-test reactors with chest roentgenograms consistent with non-progressive tuberculosis but in whom there are neither positive bacteriological findings nor a history of adequate chemotherapy.

3. Newly infected individuals.

4. Positive skin-test reactors in special clinical situations:
(a) Prolonged therapy with adrenocorticoids,
(b) Immunosuppressive therapy,
(c) Some hematologic and reticuloendothelial diseases such as leukemia or Hodgkin's disease,
(d) Diabetes mellitus,
(e) Silicosis,
(f) After gastrectomy.

5. Other positive skin-test reactors. The risk of tuberculosis is highest in infancy, high again in adolescence and early adult life, and continues at a low rate throughout life.

Treatment

Detectible tuberculosis is treated with at least two drugs simultaneously. Those taken orally are best accepted by the patient but when patient compliance becomes a problem the injectable drugs ensure enforced supervision.

INH,® considered the basic drug, is included in every primary regimen. Adults receive a single daily dose of 300 mg; children 10-15 mg/kg but not over 300 mg/day.

Ethambutol: Also given in a single daily oral dose, but at 15 mg/kg, Ethambutol is now the most commonly used companion drug for INH. The former recommendation of 25 mg/kg for the first 60 days is obsolete since it offers no added therapeutic benefit and carries a greater risk of ocular toxicity. Periodic screening of visual (and color) acuity is recommended. Being the only antituberculosis drug whose dose is weight-computed, ethambutol may be costly when used for heavy individuals.

Rifampin is as effective as INH but more costly. It is taken orally at a single daily dose of 600 mg. Rifampin can cause liver toxicity not only independently but also synergistically potentiating that caused by INH when the two drugs are used simultaneously. Interrupted ingestion of rifampin causes increased risk of liver damage and such intermittent treatment regimens are not recommended in this country.

Para-Aminosalycilic Acid (PAS), cheap and taken orally, is a weaker but effective companion drug. It is unpopular with patients (gastrointestinal distress) and physicians (patient's complaint and major drug reactions). A buffered form is available for single-dose use; gastrointestinal intolerance to this is less common, and the daily cost is low.

Streptomycin, one gm intramuscularly daily, is the most useful injectable drug. If the patient

shows clear improvement after 60 or 90 days, a three-times-weekly regimen may be prescribed. The injections may cause nuisance pain or local hemorrhage but the drug has a potential for a number of more serious toxic reactions, including damage to the acoustic nerve.

Other drugs, less frequently used because of lesser potency or greater toxicity, include the orally taken medications ethionamide, pyrazinamide, and cycloserine; and the injectible medications Viomycin,® capreomycin, and kanamycin. Many commonly used antimicrobial drugs, including Garamycin® and the tetracyclines, have *in vitro* antituberculosis activity but no *in vivo* therapeutic value. They may, however, delay laboratory diagnosis by suppressing bacillary growth in sputum, urine, and other body-fluid specimens.

Drug Toxicity

To varying degrees and permutations, all antituberculosis drugs share similar toxicities. Minor reactions (nausea, body temperature elevation, eosinophilia, erythema) may be transient and manageable if the drug is essential and irreplaceable. Major reactions (hepatocellular damage, severe hyperpyrexia, vomiting, progressive dermatitus) require cessation of all therapy for at least one week and then reassessment of the regimen.

Duration of Treatment

Active tuberculosis is treated with at least two drugs for 18 to 24 months. Late loss of symptoms, delayed conversion of sputum to negative culture, or slowly healing advanced (cavitary, caseous) disease may mandate more prolonged regimens. Individuals responding satisfactorily to initial therapy should be discharged from supervision with the recommendation to return if symptoms recur. The exceptional circumstance of the treated patient with persistently positive sputum may indicate intermittent or non-compliant self-therapy, and may also result from infection with drug-resistant or atypical bacilli. Drug susceptibility studies and careful characterization of the infecting bacillus are required. More complex "secondary" drug regimens — often with the balanced use of four or five toxic drugs simultaneously — is best planned consultatively.

Therapeutic Program and Management

The non-hospital treatment of tuberculosis currently receives major emphasis. In most patients not seriously ill, the therapeutic program need not interrupt normal life or employment. Hospitalization is wise for those requiring nursing, for patients in need of beyond-standard study, and possibly for the irresponsible patient and public-health menace deserving intensive indoctrination. Patient education regarding his disease should begin with his first visit and cannot be overemphasized. Remotivation should be strengthened at each visit.

Transition from in-patient to out-patient status should be smooth and without therapeutic interruption. The community hospital, the clinic, or the private physician should be supplied promptly with records and they should be equipped to meet the patients' needs for maximal compliance and minimal recidivism. Appropriate antituberculosis therapy rapidly (within two to four weeks) renders the source-patient non-contagious, even though his sputum may retain smear-detectable tubercle bacilli. This need not preclude simple precautions regarding the shielding of coughing, laughing, sneezing, and the avoidance of congested living conditions.

The use of face masks to filter out "droplet" infection is no longer regarded as protective. The greatest risk of index-to-contact infection antedates diagnosis and treatment.

The possibility that the tubercle bacillus might become increasingly drug-resistant has not developed over the two-and-one-half decades of INH use. The majority of new cases still recover under standard drug therapy. However, patients previously not optimally drug-treated, or those treated and who have relapsed, must be studied for drug-resistant or atypical-bacillus infection.

Aeorosolized or nebulized sputum may be induced from patients no longer spontaneously productive. Aspiration of gastric contents is unpleasant and bacteriologically unrewarding.

The patient satisfactorily completing adequate drug therapy should be dismissed from follow-up; his probability of cure is high.

Contact Follow-up

Untreated patients with smear-positive sputum specimens for tubercle bacilli are infectious. Examination of all close contacts by tuberculin skin test (repeated in twelve weeks if negative) is recommended.

Appendix

New Jersey State Department of Health Services

Standard drugs are made available by the State Department of Health on the physician's prescription. These will be issued on a one-month's supply basis to facilitate recommended surveillance of the patient for side effects at intervals of no more than one month. Prescriptions will be honored at any of some 45 Chest Clinics and about 50 Biological Distributing Stations maintained in cooperation with the State Department of Health. Drug Request Form TB-6 is available for this purpose.

Laboratory Service, including smears or spreads on sputum concentrates, cultures for speciation (M. tuberculosis and atypical mycobacteria), and drug sensitivity tests (antibiograms) are available from the State Department of Health.

Prompt reporting to the health department on Form TB-23 is essential to facilitate identification and follow-up of contacts. A report should not be delayed while waiting for a culture result if the other criteria for a diagnosis are present.

Consultation is available by phone at 609-292-7100 or by writing to TB Services, New Jersey State Department of Health, Box 1540, Trenton, New Jersey 08625.

Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

In the beginning of this year, which will see both the Bicentennial celebration and the election of the next President, it might be well to stop and consider where we are. There is still only one Conditional PSRO, Passaic Valley, in our State. Four others are Planning PSROs, and three areas have yet to receive any Federal funds. The projected budget for PSRO for Fiscal Year 1976 — $47.6 million — was vetoed, so now the program is limping along on the extended 1975 budget of $37 million. Recent amendments, signed December 31, are of some help, since they provide mechanisms for reimbursement of PSROs for review, but they do not help the non-Conditional areas. HEW is investigating alternative sources of fiscal relief for the program.

The deadline of January 1, 1976, as originally written into the law, has passed. This permitted the Secretary of HEW to appoint *non*-physician PSROs. The date has been extended to January 1, 1978. Between now and then, it is hoped that enough dollars are provided so that the physicians who have been preparing to review quality, necessity, and appropriateness of medical care can be given the opportunity fully to test the value of the program.

The Support Center functions of NJFHCE are also affected by this lack of dollars. Federal funding beyond June 30 of this year is under a cloud, despite the fact that there will be an obvious need for coordinating and support activities to continue, at least until all 8 areas in the State have started to operate on their own. In other words, the fewer "working" PSROs, the more need for Support Center work.

We are continuing to press for a full-dress trial of the peer review process across the country. If the program fails because of inadequate performance, so be it; if it does not get a decent chance to demonstrate its capabilities because of money, a lot of people have been wasting their time.

"Quality Assurance" is a part of every piece of legislation affecting medical care under consideration. Our main reason for existence is to see that the practicing physician will define and evaluate the quality. Of course, the Foundation is continuing to represent you in other activities — with "private" carriers, the State Department of Health, HMO, and IPA developments. There are strong forces aimed at you and your colleagues. We are in the age of accountability and consumerism, and litigation seems to have replaced the duels of honor 200 years ago. We need all the help we can get. We need you and you need us.

Diagnostic Patterns in Disability: New Jersey and the Nation*

*This short statistical analysis of data compiled by the Office of Research and Statistics, Social Security Administration, which was prepared by Eric H. Wolf, M.D., Medical Director, Division of Disability Determinations, New Jersey Department of Labor and Industry, shows the extent and nature of New Jersey's participation in the social security disability insurance program. It compares some of the State's data with national averages, and includes a comparison of worker disability allowances by diagnostic groups for New Jersey and the United States overall.

Under the provisions of the social security disability program, the nation's largest disability plan, a worker under 65 can receive monthly benefits if he or she becomes unable to work due to a mental or physical impairment that has lasted — or is expected to last — at least 12 months or is expected to result in death.

Almost 80 million workers can count on monthly cash benefits in the event of such severe and extended disability. In addition, the dependents of these workers are also eligible for monthly benefits. Nearly 2.4 million workers and 1.8 million dependents are now receiving disability benefits at the rate of more than $7.5 billion a year.

Currently, 75,500 disabled workers in New Jersey are receiving $17,800,000 a month in benefits. In addition, 11,200 wives or husbands of disabled workers and 35,600 children of disabled workers in New Jersey are receiving benefits at a monthly rate of $825,000 and $2,500,000, respectively.

The latest year for which tabulated data are available showing disabled worker diagnostic patterns by State is 1972. Disabled workers in New Jersey who began receiving benefits in that year constituted 15,384 of the 455,398 new beneficiaries nationwide.

The table compares the frequency of diagnostic groups in New Jersey with the United States overall. It shows that diseases of the circulatory system comprised the largest diagnostic group in the country in 1972. Diseases of the musculoskeletal system and mental disorders, including psychoneurotic and personality disorders, were the second and third largest diagnostic groups, respectively. All states do not, however, follow this pattern.

Within these overall diagnostic groups, the most prevalent *primary diagnosis* in both New Jersey and the nation in 1972 was chronic ischemic heart disease. New Jersey recorded 3,670 cases that year. The nation's second most common primary diagnosis, osteoarthritis, accounted for 568 cases in New Jersey. Following these, in order of decreasing national prevalence, was displacement of intervertebral disc, with New Jersey reporting 426 cases, followed by schizophrenia with 837 cases. There were 452 cases of emphysema in New Jersey, 388 cases of diabetes mellitus, and rheumatoid arthritis and allied conditions accounted for 358 cases in New Jersey that year. Acute cerebrovascular disease, listed eighth among the most prevalent primary diagnoses in 1972, recorded 447 cases in New Jersey, malignant neoplasm of trachea and lung 245 cases, and other respiratory diseases ranked tenth with 193 cases.

Social Security Worker Disability Allowances 1972

Diagnostic Group	*United States*		*New Jersey*	
	No.	%	No.	%
Diseases of the circulatory system	146,684	32.2	5,454	35.5
Diseases of the musculoskeletal system	75,923	16.7	2,256	14.7
Mental, psychoneurotic, and personality disorders	45,253	9.9	1,793	11.7
Neoplasms	43,667	9.6	1,514	9.8
Accidents, poisonings, and violence	31,728	7.0	883	5.7
Diseases of the respiratory system	33,038	7.3	848	5.5
Diseases of the nervous system and sense organs	28,216	6.2	831	5.4
Endocrine system, metabolic, and nutritional diseases	17,352	3.8	535	3.5
Diseases of the digestive system	13,369	2.9	445	2.9
Infective and parasitic diseases	8,627	1.9	347	2.3
Other	11,541	2.5	478	3.1
Total	455,398	100.0[a]	15,384	100.0[a]

[a] Figures may not total 100% due to rounding.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY — Ramon Kasilag, M.D., 44 Barr St., Regina, Saskatchewan, Canada. Santo Tomas, 1960. Board eligible. Group, partnership, or solo. Available (call 201-664-4802 — Dr. A. Sobel — for information).

DERMATOLOGY — Sidney A. Hochman, M.D., 120-27E Alcott Place, Bronx, New York 10475. Einstein 1968. Board certified. Partnership or group. Available.

FAMILY PRACTICE — Renato T. Diaz, M.D., 21 Walnut Rd., Apt. II-2A, Glen Cove, New York 11542. University of the East (Philippines) 1966. Board eligible. Group. Available July 1976.

Robert J. Baird, M.D., 2702 Fruitville Pike, Lancaster, Pennsylvania 17601. Temple 1973. Group or partnership, semi-rural, central New Jersey preferred. Available August 1976.

GENERAL PRACTICE — Andrew Larkin, M.D., 4535 Larchwood Ave., Philadelphia 19143. Harvard 1972. Group or partnership. Available July 1976.

INTERNAL MEDICINE — Martin W. Isenman, M.D., 758 Elmwood Terrace, Rochester, New York 14620. NYU (Downstate) 1975. Subspecialty, rheumatology. Board certified. Group or partnership. Available July 1976.

Anderson Tsai, M.D., 121 Congress St., Brooklyn 11201. Kaohsiung (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976 (212-237-1338).

Stephen W. Borrus, M.D., 7118 Bonita Drive, Miami Beach, Florida 33141. CMDNJ 1973. Board eligible. Group or partnership. Available July 1976.

Nilesh Rana, M.D., 230 Fairhaven Drive, Jericho, New York 11753. T.N. Medical (India) 1969. Subspecialty, gastroenterology. Board eligible. Group, partnership, hospital. Available July 1976.

Jen-Shong Lin, M.D., 355 Bard Ave., Apt. 6-J, Staten Island, New York 10310. Taipei (Taiwan) 1968. Board eligible. Group, partnership, hospital based. Available July 1976.

Robert J. Rubano, M.D., 3102 Glencairn Ave., Toledo, Ohio 43614. CMDNJ 1970. Board eligible. Group or partnership. Available July 1976.

Roberto R. Diaz, M.D., 355 Bard Ave., Staten Island, New York. Santo Tomas (Philippines) 1970. Board eligible. Solo or associate. Available July 1976.

NEUROLOGY — Anthony C. Breuer, M.D., 83 Craftsland Rd., Brookline, Mass. 02167. Harvard 1970. Board eligible. Group, partnership, hospital. Available July 1977.

OBSTETRICS AND GYNECOLOGY — Choon-Won Koo, M.D., 383 Lexington Ave., Youngstown, Ohio 44504. Chonnom University 1967. Solo or group. Available July 1976.

Thomas P. McCormack, M.D., 33 Highland St., Apt. 5-F, New Britain, Conn. 06052. Georgetown 1970. Board eligible. Group or partnership. Available July 1976.

Min-Chung Lin, M.D., 30-33 72nd Street, Jackson Heights, New York 11370. Taipei (Taiwan) 1970. Board eligible. Partnership or group. Available July 1976.

Alfredo Cola, M.D., 1001 Dorchester Road, Apt. 1, Brooklyn, New York 11218. Uruguay Medical 1970. Board eligible. Partnership or association. Available July 1976.

Ching Wu Hou, M.D., 43-135th Street, Apt. 8-P, Jamaica, New York 11418. China Medical (Taiwan) 1969. Board eligible. Solo, group, or partnership. Available July 1976.

OTOLARYNGOLOGY — Tay B. Lee, M.D., 5601 Boulevard East, West New York, New Jersey 07093. Seoul University (Korea) 1962. Board certified. Partnership, group, or solo. Available.

PEDIATRICS — R. Natesan, M.D., 85 Manor Drive, Apt. 3C, Newark 07106. Madurai 1965. Board eligible. Group, partnership, associate, solo. Available July 1976.

Surendra C. Sheth, M.D., 900-17-B, Coop City Blvd., Bronx, New York 10475. Baroda 1970. Board eligible. Group or partnership. Available July 1976.

Jack C. Wu, M.D., Anderson Hospital and Tumor Institute, Houston, Texas 77025. Kaohsiung (Taiwan) 1968. Subspecialty, hematology and oncology. Board eligible. Available July 1976.

Peri Kamalakar, M.D., 167 Crestmount St., Tonawanda, New York 14150. Buntur (India) 1967. Subspecialty, hematology and oncology. Board certified (pediatrics). Group, partnership, associate, solo. Available September 1976.

Gianmaria Minervini, M.D., 908 Hudson Street, Hoboken 07030. NYU 1973. Board eligible. Group, partnership, clinic. Available July 1976.

Dong H. Kim, M.D., 59 Van Horn Street, Demarest 07627. Catholic (Korea) 1960. Board certified. Solo, partnership, group. Available July 1976.

Michael B. Andorsky, M.D., 145 West 71st Street, New York 10023. Vermont 1970. Board certified. Group, partnership, solo. Available July 1976.

G. S. Saluja, M.D., 43-44 Kissena Blvd., Apt. 6E, Flushing, New York 11355. India Institute of Medical

Science 1969. Subspecialty, pediatric hematology. Board certified. Group, partnership, solo, hospital. Available July 1976.

Yong-Kwon Chun, M.D., Station H, P.O. Box 95, Central Islip, New York 11722. Pusan (Korea) 1965. Group or partnership. Available July 1976.

Vasudev Gabbur, M.D., 97-15 Horace Harding Expressway, Apt. 18-M, Corona, New York 11368. Osmania (India) 1963. Board certified. Solo, group, or partnership. Available.

Jose D. Buhain, M.D., 85 Livingston St., Apt. 12-G, Brooklyn, New York 11201. Far Eastern (Philippines) 1967. Board certified. Partnership, solo, group, hospital. Available July 1976.

M. H. Ziai, M.D., 188 Hillside Avenue, Cresskill, New Jersey 07626. Teheran 1960. Board certified. Partnership or solo. Available July 1976.

Wen-Shiang Hong, M.D., 89-30 134th Street, Jamaica, New York 11418. Taipei (Taiwan) 1971. Board eligible. Partnership or solo. Available July 1976.

PSYCHIATRY — Lauretta A. Blake, M.D., Dina Manor Apts., 1320 H Street, Belmar, New Jersey 07719. New York Medical 1952. Board eligible. Partnership or group, hospital or institution. Available March 1976.

RHEUMATOLOGY — Robert S. Katz, M.D., 102 West 39th Street, Apt. 3A, Baltimore, Maryland 21210. Maryland 1970. Board certified (internal medicine). Group, hospital, association. Available July 1976.

SURGERY — Gabriel D. Cacuci, M.D. 5104 Skillman Ave., Woodside, New York 11377. Cluj University (Romania) 1968. Board eligible. Group, partnership, associate, solo. Available.

Luis A. Barranco, M.D., Calle Jobos, Ponce, Puerto Rico 00731. Madrid 1956. Board eligible. Group, partnership, hospital. Available.

Sarat K. Dash, M.D., 410 Prospect Street, Apt. 3B, East Orange 07017. S.C.B. Medical (India) 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, solo. Available July 1976.

Sham Bajina, M.D., 2200 Benjamin Franklin Parkway, Suite 1501, Philadelphia 19130. Subspecialty, peripheral vascular surgery. Board eligible. Group, partnership, solo, institution. Available.

Omkar N. Tiku, M.D., 585 Bloomfield Ave., West Caldwell 07006. Calcutta (India) 1962. Board certified. Partnership, solo. Available.

Ashwin I. Mehta, M.D., 702-B James Street, Bridgeport, West Virginia 26330. Baroda (India) 1960. Board certified. Group or partnership. Available July 1976.

Ahmad H. Shatila, M.D., 16331 Heather Lane, Middleburg Heights, Ohio 44130. American University (Beirut) 1970. Board eligible. Subspecialty surgical oncology. Group, solo, partnership, or academic. Available July 1976.

UROLOGY — Noel Tak-Cheung Hui, M.D., 5715 S. Drexel, Apt. 305, Chicago 60637. National (Taiwan) 1970. Board eligible. Solo or group. Available July 1976.

Kwang Hoon Kim, M.D., 1935-17A Eastchester Rd., Bronx 10461. Seoul National 1969. Board eligible. Solo, partnership, group. Available August 1976.

Chester I. Stone, M.D., 40 Morrow Ave., Scarsdale, New York 10583. CMDNJ 1971. Board eligible. Partnership, group. Available July 1976.

Mark J. Brodkey, M.D., 605 Elysian Fields Ave., New Orleans, Louisiana 70117. John Hopkins 1968. Board eligible. Partnership or group. Available July 1976.

Family Physicians Needed for the Military

The Army Medical Department represents the largest comprehensive system of health care delivery in the United States. Within one centrally directed system the medical disciplines of patient care, preventive medicine, research, education, and administration are coordinated to provide health care for over three million people, including active army personnel, their dependents, and retirees. Currently there are vacancies throughout the United States, including Alaska and Hawaii, and in Europe and the Orient. Assignments are made by the Office of The Surgeon General and may be negotiated prior to entering into any obligation to serve. Salaries range from $31,000 to $45,000, depending on training and experience.

Military physicians have 30 days paid annual leave, regular working hours, periodic length-of-service and promotional pay increments, and retirement and disability retirement pay is provided at no cost to the physician. There are no overhead costs and military physicians have not experienced personal liability in malpractice cases.

Information is available from Captain David R. Stanton, AMEDD Personnel Procurement Office, Building 5515, Room 316, Fort Dix, New Jersey 08640, or call (collect) 609-562-4556.

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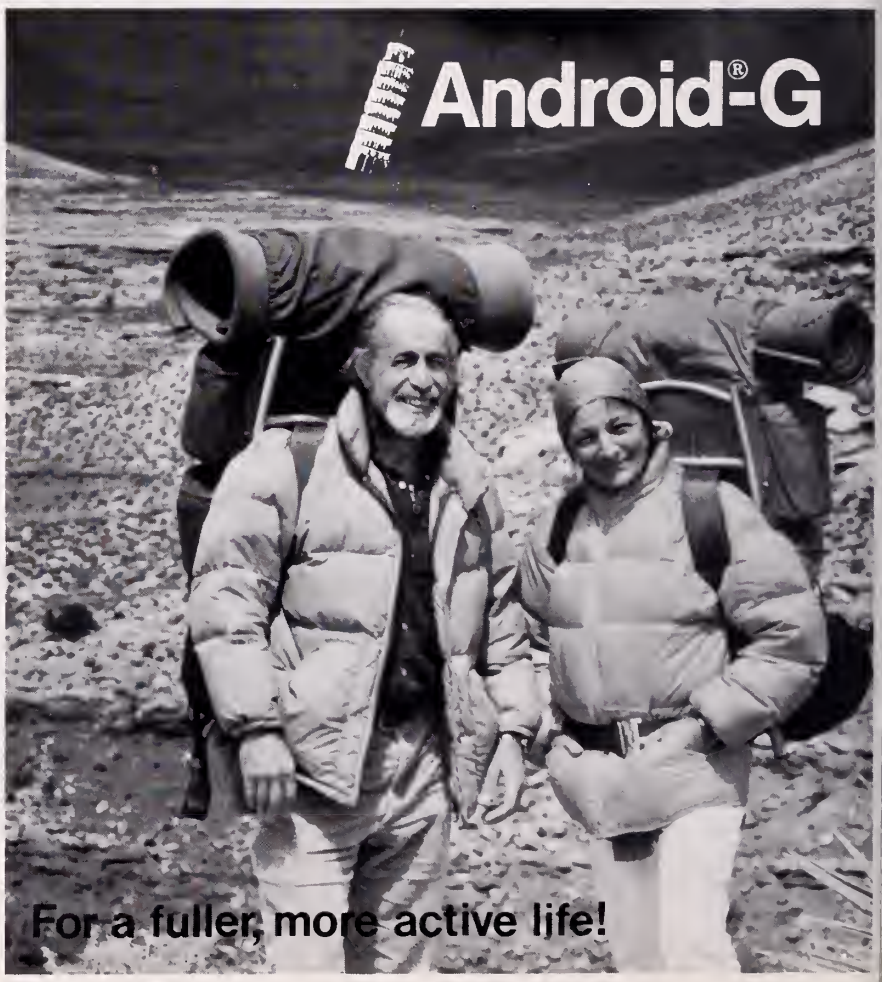


Bicentennial Medical Exhibit

Trinity Church and its parsonage, Newark, 1805

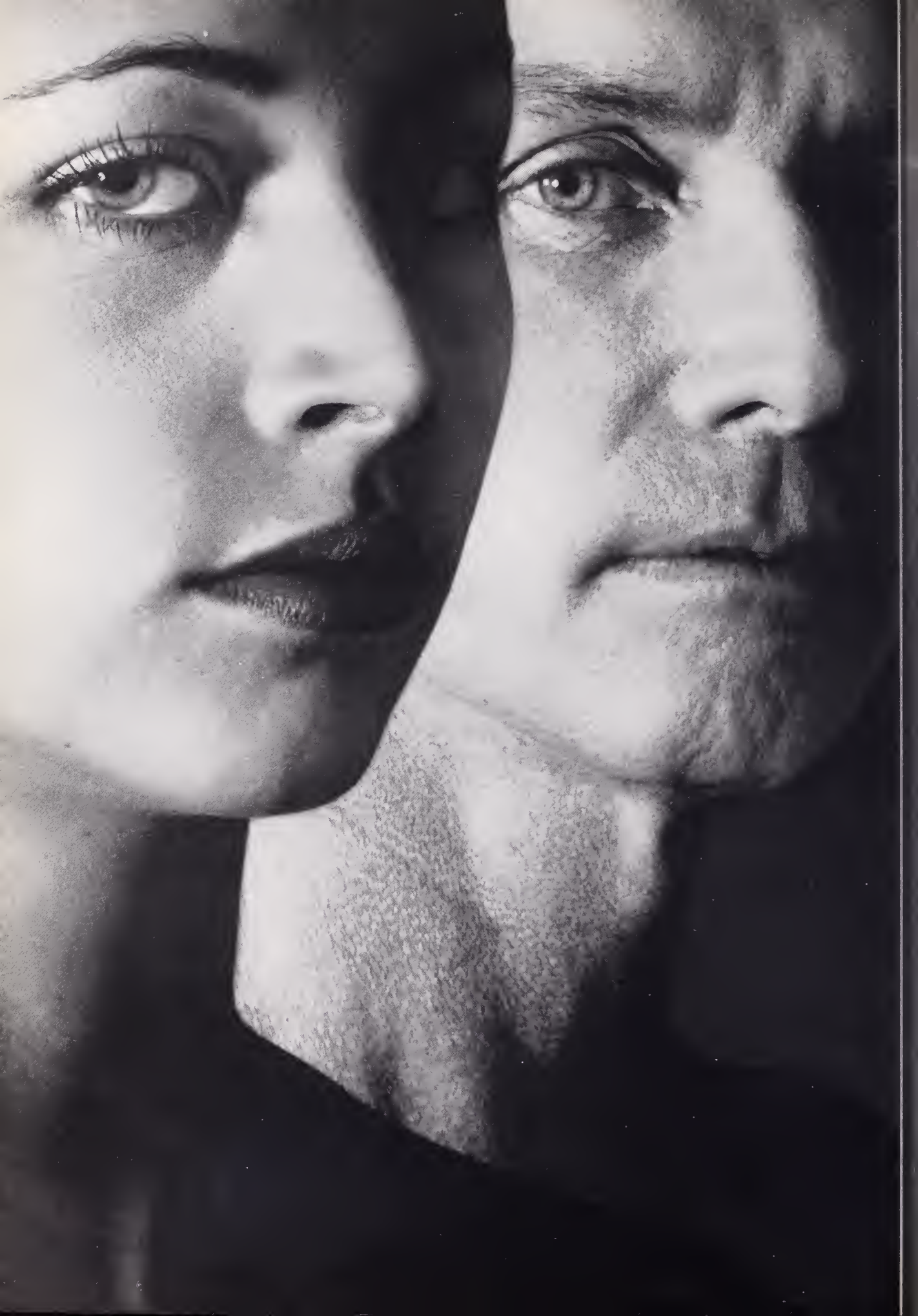
Sepia drawing by Archibald Robertson (1765-1835)

Shortly after Washington retreated from New York in 1776, this church was used as a hospital for the Continental Army. NJHS

"New Jersey Medicine in the Era of the American Revolution," an exhibition, opened at The New Jersey Historical Society in Newark on February 4. Prepared by the Society with the cooperation of Rutgers University Library and other lenders, the exhibition is cosponsored by the Academy of Medicine of New Jersey, The Medical Society of New Jersey, and the New Jersey State Museum.

The bicentennial exhibit will deal with private and military medicine during the period 1763 to 1787 and will treat such topics as physicians and medical societies, hospitals (see illustration), domestic medicine, and medical and surgical instruments. Centering around little-known manuscript sources from the collections of the Society and Rutgers University, the exhibition will include library and museum materials from institutions and private collectors throughout the state. Portraits, newspapers, broadsides, letters, orderly books, instruments, and even recipe books will be used in this exhibition to tell the story of New Jersey's medical role in the latter part of the eighteenth century.

The exhibition will remain at The New Jersey Historical Society (230 Broadway, Newark) until March 24 and then will travel to Rutgers University (April 1 to May 27), and subsequently to the State Museum in Trenton (June 5 to August 1).



Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

P·M·A

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ANNOUNCEMENTS

Pulmonary Disease Series

Following is a list of the monthly lectures in pulmonary diseases to be sponsored jointly by the Veterans Administration Hospital in East Orange and the New Jersey Medical School in Newark:

Mar. 17—Pulmonary Cardiogenesis
Apr. 21—Categories of Pulmonary Disease Measured by Functional and Laboratory Data
May 12—Rehabilitation of Chronic Pulmonary Patient

All sessions will be held at 11:30 a.m. in the third-floor auditorium of the East Orange Veterans Administration Hospital. For additional information, please communicate with L. Fred Ayvazian, M.D., Chief of the Pulmonary Disease Section at the hospital.

Pediatric Sessions at Jersey Shore

The Departments of Pediatrics and Neurology of the Jersey Shore Medical Center in Neptune announce the following programs to be held in the conference room of the hospital, starting at 9:30 a.m. on the dates indicated:

March 17 Minimal Brain Dysfunction
H. deC. Peterson, M.D.
Cornell Medical Center

March 23 Pediatric Program
P. Papageorgiou, M.D.
Rutgers Medical School

Hour-for-hour credit has been approved for Category I in the AMA Physician's Recognition Award. There is no fee and luncheon will be available in the hospital cafeteria. For additional information, please communicate with the Department of Medical Education (Mrs. Lowery) Jersey Shore Medical Center, 1945 Corlies Avenue, Neptune 07752.

Symposium on Problems of Aging

A symposium on the most frequent medical and societal problems of the aging will be held on March 24 from 1:30 to 4 p.m. in the auditorium of the Daughters of Miriam Center for the Aged in Clifton. Members of the faculty of the College of Medicine and Dentistry and staff members of area hospitals will compose the panel of presenters whose topics include common dermatologic problems of the aging, cataracts and glaucoma, organic brain syndrome and Parkinsonism, hip fracture and arthritis, physiotherapy and rehabilitation, incontinence, and societal problems of the aging. The American Academy of Family Practice will allow 2½ credit hours for attendance and approval has been given also for Category I credit in the AMA Physician's Recognition Award. For additional information, please communicate with Seymour P. Jaslow, M.D., who is chairman of the session and Medical Director of the facility located at 155 Hazel Street, Clifton 07015 (201-772-3700).

Central New Jersey Chest Conferences

The New Jersey Thoracic Society and the Delaware-Raritan Lung Association are cosponsors of the following two central New Jersey Regional Chest Conferences:

April 1 — Rutgers Medical School, Piscataway
Respiratory Failure and Factors Determining Oxygen Transport
Louis R. DelGuercio, M.D., St. Barnabas Medical Center

May 6 — Hunterdon Medical Center, Flemington
Newer Forms of Asthma Therapy
Theodore Weinstein, M.D., Hunterdon Medical Center

Each of the sessions convenes at 4 p.m. and runs until 6 p.m. Application has been made for two credit hours (each program) in Category I of the AMA Physician's Recognition Award. For information, please communicate with Ms. Hummel, Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton, New Jersey 08540.

College of Physicians Annual Session

The 57th Annual Session of the American College of Physicians will be held at the Philadelphia Civic Center, April 5 to 8. Program highlights include a series of lectures on the current understanding of neoplastic diseases, 16 panel discussions on a wide variety of subjects,

14 formal scientific papers, 126 "Meet the Professor" sessions, four symposia, workshops, and special features, such as a mini-course on clinical hematology.

Advance registration is urged; there is no fee for members of ACP or nonmember physicians who were graduated from medical school before January 1, 1966. Other physicians ($50), interns, residents, graduate students and fellows, and nurses and paramedical personnel ($12) may register at the time of convention. Tickets for the "Meet the Professor" sessions and the cardiovascular conference are $10; for the workshops the fee is $30 and for the mini-course on hematology the charge is $75. Please make your requests for tickets promptly to the American College of Physicians, Convention Department, 4200 Pine Street, Philadelphia 19104.

Technical and scientific exhibits will be displayed, and the evenings will be highlighted by social events. Housing accommodations will be handled by the Housing Department of the Philadelphia Convention Bureau, Suite 1420, 1617 Kennedy Boulevard, Philadelphia 19103. The postconvention tour and medical seminar will travel to Colombia, South America. For details please write to the McGettigan Travel Bureau, 1609 Walnut Street., Philadelphia 19103.

Surgical Lectures — Rutgers Medical School

The Rutgers Medical School, CMDNJ, Department of Surgery, is sponsoring the following additional programs in its series of Visiting Professor Lectures. The sessions have been approved for one credit-hour each in Category I of the AMA Physician's Recognition Award.

April 6	*Value of Dorsal Sympathectomy* L. T. Palumbo, M.D., Clinical Professor of Surgery University of Iowa Medical School
May 4	*Management of Esophageal Carcinoma* Ward Griffen, M.D., Professor and Chairman of Surgery University of Kentucky Medical School
June 1	*Surgical Significance of Benign Colorectal Polyps* Robert E. Condon, M.D., Professor of Surgery Medical College of Wisconsin

All lectures will be held at 5 p.m. in the main auditorium of Rutgers Medical School, University Heights, Piscataway. For further information, please communicate with John H. Landor, M.D., Professor and Chief of the Division of General Surgery at the College.

Seminar on the Spine

An interspecialty graduate seminar on the spine will be sponsored by the Maricopa County Department of Health Services, Phoenix, Arizona, from April 12 to 14. Sessions will be held at the Maricopa County General Hospital and the faculty will include orthopedic surgeons and radiologists. The course has been approved for 15 hours of category I credit in the AMA Physician's Recognition Award. Tuition is $110. For information, please communicate with the Program Director, Austin R. Sandrock, M.D., Department of Radiology, Maricopa County General Hospital, 2601 East Roosevelt, Phoenix, Arizona 85008.

Programs on Dermatology

The New Jersey Dermatological Society has announced the following program schedule for 1975-1976:

April 13	Clinical Pathological Conference Lewis Shapiro, M.D. Columbia University College of Physicians and Surgeons
May 11	Dinner Meeting (details to be announced later)

The April meeting will be held at 8 p.m. at Johnson and Johnson in New Brunswick. For the time and location of the May dinner and other details please communicate with the Secretary of the New Jersey Dermatological Society, Robert M. Fischbein, M.D., 512 East Broad Street, Westfield 07090.

Symposium on Monitoring the High Risk Patient

On Saturday, April 17, a graduate symposium on monitoring of the high-risk patient will be presented by the Saint Barnabas Medical Center. The program has been arranged in conjunction with the American Trauma Society, the

New Jersey Society of Anesthesiologists, MSNJ's Section on Surgery, and the Society for Critical Care Medicine. The session will convene at 8:30 a.m. in the auditorium of the Medical Center. Registration fee is $30; postgraduate trainees and medical students are admitted without charge but must pre-register. The program qualifies for four credit-hours in Category I of the AMA Physician's Recognition Award and for five hours by the American Academy of Family Physicians. Topics are concerned with physiologic assessment, monitoring in radical surgery, and predictive indices for critical care. There will be a panel discussion following the formal presentations and a tour of the surgical physiology laboratory and the intensive care units. For additional information, please communicate with Ms. Rosenbloom, Department of Surgery, St. Barnabas Medical Center, Old Short Hills Road, Livingston 07039.

American College of Surgeons Spring Session

The American College of Surgeons graduate education session for general and specialty surgeons will be held April 26 to 29 in Boston. The following formal courses will be offered:

Surgical Infections and Antibiotics
Endocrine and Hormone-Producing Tumors
Duodenal Ulcer Disease
The Cervical Spine: Injuries, Disc Lesions, and Spondylosis
Fluids, Electrolytes, and Acid-Base Balance
Hematologic Problems in Surgery
Thoracic Trauma and Pulmonary Insufficiency
Orthopedic Surgery — Hand Injuries, Ankle Injuries, and Back Pain

In addition there will be general lectures, panel discussions, and symposia on breast cancer, biliary tract surgery, and peripheral vascular disease, and a program on the federal government and the surgical profession. Registration is free for Fellows in good standing, ACS candidates, and surgical residents and interns. The fee for non-paid Fellows, applicants, and guests is $55. Non-Fellows in fulltime federal service may register for $30. The charge for each of the eight courses is $50. Fellows have already received official registration and hotel accommodation forms. Non-Fellows may request these from S. Frank Arado, American College of Surgeons, 55 East Erie Street, Chicago 60611.

Congress of Hypnosis and Psychosomatic Medicine

The International Congress of Hypnosis and Psychosomatic Medicine will meet in Philadelphia from July 1st through the 3rd at the Marriott Hotel. The Congress will be the central conference in a series of three consecutive bicentennial meetings sponsored by the University of Pennsylvania and the Institute of Pennsylvania Hospital from June 29 through July 4. Twelve workshops will be offered from June 26 to 29 in the use of hypnosis in medicine, psychotherapy, dentistry, and research. Additional workshops will be offered in the use of hypnosis with children, self-hypnosis and control of pain, as well as an introductory workshop for French-speaking colleagues. Participants are limited to physicians, psychologists, and dentists.

For registration and detailed descriptions of the workshops and the scientific meetings, please communicate with Martin T. Orne, M.D., 7th International Congress, 111 North 49th Street, Philadelphia 19139.

Change of Date for Clinical Immunology and Allergy Meeting

Please note that the previously announced dates for the annual scientific session and business meeting of the American Association for Clinical Immunology and Allergy are incorrect. The sessions will be held from November 28 to December 2 (1976) at the Braniff Place Hotel, Tucson, Arizona. For information, please communicate directly with the Association — P.O. Box 912, Omaha, Nebraska 68101.

Erratum

The Journal wishes to call to the attention of our readers an error in the text of "Nosocomial Infections" — Dominic A. Mauriello, M.D., 72:913 (November) 1975. Beginning in the middle of line 19, first paragraph, the clause should read: "then one must conclude that there is an extra cost of $450 million for hospital-acquired infections each year."

LETTERS TO THE JOURNAL

The Narco Fan

January 20, 1976

Dear Dr. Krosnick,

In the past few years, while continuously attending to my profession, I suddenly realized the alarming presence of a puzzling socio-medical dilemma. This dilemma originated following the uninvited introduction to the narco-fans. My definition of a narco-fan is one who zealously persists in requiring specific controlled pharmaceuticals with questionable medical justifications.

It became necessary better to acquaint myself with the basics from the layman's point of view. In the process of investigating, studying, and experimenting with the source, therefore, it was possible for me to become more knowledgeable with the street nomenclature, and especially knowledgeable of essential related information. Among other things, this study revealed to me how ill-prepared a physician could be in dealing with the total mess.

It is my opinion that drug abuse originates primarily from a combination of social wrongs and/or psychological instabilities. To cope effectively with this conclusion, we must find a flexible *modus operandi.*

From the physician's part, I have found a very effective approach is to avoid dispensing CI, CII, and CIII drugs of all categories. The substitution with effective and non-classified drugs will fill the gap satisfactorily and to no great detriment to the practice of medicine. Prescriptions for CI, CII, and CIII drugs should be kept at a minimum and released only after careful scrutinizing of the patient and the diagnosis. Let us face it — because of the abuse of the so-called and classified C.D.S. by a very significant percentage of our society, the physician's integrity is constantly under attack.

Colleagues should become much more vociferous in expressing their experience and opinions to the existing agencies that have been organized for the specific purpose of curbing drug abuse and prosecuting the criminal element associated with it. We should request and demand more direct cooperation from these agencies so that we may work together in solving some of the problems of this raging battle that we are presently losing. What stronger ally can these agencies have than those who are in the front line?

(signed) J. A. Bonaccorsi, M.D.

P.S. Please respond with opinions.

CPR Instructions for Physicians

January 27, 1976

Dear Editor:

It has come to my attention that the certification program of the New Jersey Heart Association and the State Department of Health for physicians for cardiopulmonary resuscitation requires training of medical doctors by lay instructors. The explanation given is that there are no physicians available to provide training in mouth-to-mouth resuscitation and external cardiac massage, so what's wrong with having certified laymen provide this training to physicians so that they may in turn train other physicians.

I suppose the fact that physicians are professionals who are considered to have knowledge and training above and beyond that of any layman in the health field is inconsequential when the urgency and necessity of rapidly training large numbers of experts in CPR is considered. On the other hand it does seem to abdicate the responsibility of physicians to educate one another in a highly technical field, where recognition of aberrations and exceptions requires broad and deep training by super specialists. Someone once remarked that the student can never know more than the master. We must then assume that the certified layman will always be master to the physician in this instance, at least, which only involves the

resuscitation of an otherwise dead person — which is obviously far beyond the pall of scientific accomplishment of the average humbling physician.

It is reassuring to know that graduate, licensed, practicing physicians can turn to expert laymen to learn how to care for the critically ill patient in need of CPR. How thoughtful and benevolent of our Heart Association and Department of Health to provide the wherewithal for everyone from ski patrols, beach guards, and cardiologists to paramedics and ambulance attendants to learn these mystifying technicques. Why, it shouldn't be long before the nurses will be instructing doctors in IM and IV procedures and the dieticians will provide complete courses for physicians' training in diabetic, ulcerated, hypertensive patients. The possibilities are unlimited if one considers the physician shortage crisis, the manpower maldistribution dilemma, the dearth of primary care providers, not to mention the breakdown of the health care delivery system, the multitude of incompetent physicians, the overutilization of beds, the unjustified surgery, and the lack of patient confidence. No wonder this profession has turned to laymen for direction, to consumers for control, and to government for planning.

It should be obvious to the most casual observer that the game is over when a certified internist who was apprised of the CPR program (and lay instruction) asked, "Why, what's wrong with that?" Nothing, Bunkie, nothing at all.

(signed) Kenneth A. Morrissey, M.D.

210th Annual Meeting
The Medical Society of New Jersey
June 4-8, 1976

Housing Application

Daily Rates

	Single	Twin	(Suites) Parlar and 1 Bedraam		Parlar and 2 Bedraams
Cherry Hill Hyatt House (MSNJ Headquarters)	$28	$36	$80	ta	$215
Cherry Hill Inn (Auxiliary Headquarters)	$27	$36	$65		$95
Cherry Hill Ramada Inn	$26	$36	$60		$95
Rickshaw Inn	$20	$28	$60		$90
Cauntry Squire	$20-24	$26-30	$62		$94
Sheratan Paste	$26	$36	$60		
Manticella Mator Ladge	$20-24	$26-30	$52		$79
Haward Johnsan Matar Lodge	$21	$29	$52		$79
Mallard Inn — Quality Inn	$18	$24	$36		$44
Haliday Inn	$22	$30			

Mail this application to the hotel of your choice: (Please list 2nd and 3rd choices). Confirmation will come directly from assigned hotel.

1st Choice _____ 2nd _____ 3rd _____

Accommodations Desired

☐ Single ☐ Twin ☐ Suite Parlor & 1 Bedroom ☐ Suite Parlor & 2 Bedrooms

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Will Arrive _____ (date) Time _____ Will Depart _____ (date) Time _____

☐ Check if Official Delegate _____ County

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Mar.

3-31 Perinatal Seminars (weekly)
9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center)

12 Pulmonary Diseases
1:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by New Jersey Medical School)

12 Monthly Scientific Meeting
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

12-15 Revolutionary Trends in Medicine 1976
Hyatt House, Cherry Hill
(New Jersey AFP Annual Convention)

12 Headaches in Childhood
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12 19 26 Fall-Spring Psychiatric Lecture Series
1:30-5 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

13 Diversionary Urologic Surgery
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 20 27 Advances in Orthopedic Surgery
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

15 Proper Use of Antibiotics
11:30 a.m. — Helene Fuld Hospital, Trenton
(Sponsored by Helene Fuld Hospital and Academy of Medicine)

15 Medical Lecture Series
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

15 22 29 Distinguished Lectures in Surgery
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

15 22 29 Endocrine Conferences
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

16 Non-Hodgkins Lymphoma
6:30 p.m. (dinner precedes session) Holiday Inn, East Orange
(Sponsored by Academy of Medicine)

16 Clinical Immunology
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

16 Joint Neurological-Neurosurgical Conferences
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

16 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

16 Arthritis
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 23 30 Psychiatric Case Conferences
7:30-9:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

16 23 30 Topics in Neurosurgery
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

16 23 30 Tumor Conferences
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

17 Recent Advances in Pulmonary Disease
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

17 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

17 The Right to Psychiatric Treatment
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

17 Hypertension
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

17 Perinatal Seminars
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

17 **Minimal Brain Dysfunction**
9:30 a.m.-3 p.m. — Jersey Shore Medical Center, Neptune
(Sponsored by Jersey Shore Medical Center)

17-31 **Advances in Medicine (Weekly)**
9:30-11 a.m. — Bergen Pines County Hospital, Paramus
(Sponsored by Bergen Pines County Hospital)

17 **Conferences in Endocrinology**
24 3:30-5 p.m. — Location to be announced
31 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

17 **Hormones in Office Gynecologic Practice**
24 **Risk Factors in Breast Cancer**
31 **Breast Problems Encountered in Office Practice**
Epidemiology and Host Susceptibility Factors in Cancer
Office Dermatology
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

17 **Medical Lecture Series**
24 9-11 a.m. — Riverview Hospital, Red Bank
31 *(Sponsored by Riverview Hospital and Academy of Medicine)*

17 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

17 **Clinical Neurology — 1976**
24 11 a.m. — Alexian Brothers Hospital, Elizabeth
31 *(Sponsored by Neurological Associates and AAFP)*

17 **Medical Aspects of Aging Process**
24 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
31 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

18 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

18 **Clinical Applications of Biofeedback**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

18 **Basic Sciences and Clinical Applications**
25 Burlington County Memorial Hospital, Mt. Holly
(Sponsored by Burlington County Memorial Hospital and AAFP)

18 **Topics in Oncology**
25 1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

18 **Advances in Immunology**
25 4-6 p.m. — Institute for Medical Research, Camden
(Sponsored by Institute for Medical Research and AAFP)

19 **Antenatal and Prenatal Diagnosis of Congenital Defects**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

19 **Infertility**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

22 **Neurochemistry and Genetics of Mental Illness**
11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons, and Academy of Medicine)

23 **New Developments in Scanning**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23 **Tumor Board Visiting Professor Series**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

23 **Perinatology and Neonatology Seminar**
7 p.m. — Holy Name Hospital, Teaneck
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

23 **Pediatrics**
9:30 a.m. — Jersey Shore Medical Center, Neptune
(Sponsored by Jersey Shore Medical Center)

24 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

24 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

24 **The Limbic System; Behavior and Epilepsy**
VA Hospital — East Orange
(Sponsored by VA Hospital, East Orange, and Academy of Medicine)

24 **Non-Invasive Techniques in Cardiovascular Diagnosis**
1-5 p.m. — St. Barnabas Medical Center, Livingston
(Sponsored by Essex County Heart Association)

24 **Use of Antibiotics**
11:30 a.m. — Rahway Hospital
(Sponsored by Academy of Medicine)

25 **CA of the Lung**
7:15 p.m.-10:15 p.m. — Hospital Center of Orange
(Sponsored by Academy of Medicine and the Radiological Society of New Jersey)

25 **Hypertension**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 **Why Physical Fitness Programs Fail**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

26 **Arthritis**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

27-28 **17th Annual Postgraduate Anesthesia Seminar**
Cherry Hill Inn, Cherry Hill
(Sponsored by New Jersey State Society of Anesthesiologists and Academy of Medicine)

30 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

31 **Current Treatment of Burns**
11:30 a.m. — Rahway Hospital
(Sponsored by Academy of Medicine)

Apr.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Topics in Oncology**
1:30-2:30 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

1, 8, 15, 22, 29 **Basic Sciences and Clinical Applications**
Burlington County Memorial Hospital, Mt. Holly
(Sponsored by Burlington County Memorial Hospital and AAFP)

1 **Psychiatry**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

2, 9, 16, 23, 30 **Fall-Spring Psychiatric Lecture Series**
1:30-5 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

2 **Pre-Hospital Coronary Care**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

3, 10, 17, 24 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ-New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5, 12, 19, 26 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Medical-Legal Aspects of Medicine and Surgery**
1 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

5 **Current Chemotherapy of Malignant Disease**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

5, 12, 19, 26 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

5, 19 **Neurochemistry and Genetics of Mental Illness**
11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

6, 13, 20, 27 **Tumor Conferences**
11-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

6, 13, 20, 27 **Topics in Neurosurgery**
4-5:00 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

6, 13, 20, 27 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

6 **Comprehensive Review of Chemotherapy in Psychiatry**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

7, 14, 21, 28 **Medical Aspects of Aging Process**
3-5 p.m. — CMDNJ-New Jersey Medical School, Rm. 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Current Topics in Psychiatry**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

7, 14, 21, 28 **Perinatal Seminars**
9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

7 **Pathogenesis and Management of Uremia**
14 **Sensory Feedback in Neurological Disorders**
21 **Basic Principles of Behavior Therapy**
28 **Medical Aspects of the Psychiatric Consultation**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

7 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7, 14, 21, 28 **Conferences in Endocrinology**
3:30-5 p.m. — Location to be announced
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)

7 **Cardiology Conferences**
21 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

7-9 **Emergency Medicine Conferences (Three Day Sessions)**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

7 **Neurology-Headache**
1-3 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Academy of Medicine, and AAFP)

7 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Monthly Meeting**
8-10 p.m. — Morristown Memorial Hospital
(Sponsored by New Jersey Gastroenterological Society and Academy of Medicine)

8 **Internal Medicine/Family Medicine Visiting Pro-**
22 **fessorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

8 **Shock in Newborn**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

8 **Suicide**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

9 **Chronic Osteomyelitis in Childhood**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

9 **Monthly Scientific Meeting**
8:30 p.m. — Hackensack Hospital
(Sponsored by New Jersey Psychoanalytic Society and Academy of Medicine)

9 **Human Sexuality Seminar**
11 Cherry Hill Inn, Cherry Hill
(Sponsored by New Jersey Medical School, CMDNJ, Academy of Medicine, and AAFP)

9 **Endocrinology**
1:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by New Jersey Medical School)

10 **Pharmacology of New Anesthetic Agents**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Clinical Endocrinology**
8 p.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

13 **Clinical Immunology**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

13 **Diabetes**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

13 **Clinical Pathological Conference**
8 p.m. — Johnson & Johnson, New Brunswick
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

14 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

14 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

15 **Renal Regulation of Sodium Excretion**
Somerset Hospital, Somerville
(Sponsored by Nephrology Society of New Jersey, N.J. RMP and Academy of Medicine)

15 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

15 **Breast Neoplasias — Part II**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

16 **Surgical Management of Ulcerative Colitis**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

17 **Monitoring of the High Risk Patient**
9 a.m. — St. Barnabas Hospital, Livingston
(Sponsored by St. Barnabas Hospital, Department of Surgery)

19 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

20 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

20 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

20 **Dermatology**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

21 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 **Treatment of Pain; Medical and Neurosurgical**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

21 **Thyroid Diseases**
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

21 **Geriatric Psychiatric Syndromes with Review of Chemotherapy**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

22 **The Middle Ear**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

22 **Therapy of Diabetes**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

22 **Modern Management of Pulmonary Tuberculosis**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

27 **Rape — Physician's Role**
8-10 p.m. — 151 Hillside Avenue, Englewood
(Sponsored by New Jersey Medical Women's Association and Academy of Medicine)

27 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

27 **Trauma-Outpatient Department**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 **Perinatology and Neonatology Seminar**
7 p.m. — Chilton Memorial Hospital, Pompton Plains
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

28 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

28 **Management of the Diabetes Patient**
9 a.m.-5 p.m. — Rutgers Medical School, Piscataway
(Sponsored by American Diabetes Association and AAFP)

30 **Diagnosis of the Anemic Patient**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

May

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3, 10, 17, 24 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Anesthesiology**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

3, 10, 17, 24 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

4, 11, 18, 25 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

4 **New Developments in Scanning**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

4, 11, 18, 25 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

4, 11, 19, 25 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

5 **Biochemistry of Mental Disorder**
8 a.m.-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

5 **Renal Tubular Dysfunction**
12 **Intestinal Absorption and Malabsorption**
19 **The Future of Allergy**
26 **Office Use of Antibiotics**
9:00-11:00 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

5 **Conferences in Endocrinology**
12 3:30-5 p.m. — Location to be announced
19 *(Sponsored by CMDNJ-New Jersey Medical School,*
26 *VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

5 **Clinical Neurology — 1976**
12 11 a.m. — Alexian Brothers Hospital, Elizabeth
19 *(Sponsored by Neurological Associates and AAFP)*
26

5 **Perinatal Seminars**
12 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
19 *(Sponsored by Newark Beth Israel Medical Center)*

5 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Cardiology Conferences**
19 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Peripheral Vascular Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Jersey City)

6 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 **Topics in Oncology**
13 1:30-2:30 p.m. — Martland Hospital, Newark
20 *(Sponsored by CMDNJ-New Jersey Medical School*
27 *and Academy of Medicine)*

6 **Basic Sciences and Clinical Applications**
13 Burlington County Memorial Hospital, Mt. Holly
20 *(Sponsored by Burlington County Memorial Hospital and AAFP)*

7 **Fiberoptic Bronchoscopy**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

11 **Arthritis**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

11 **Emergency Medicine**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

11 **Laboratory Interpretations**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

11 **Arthritis**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

12 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Office Treatment of Depression**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

12 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

12 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

12 **Chronic Renal Failure**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

13-15 **Rational Drug Therapy in Cardiovascular Disease, II**
9 a.m.-5 p.m. — Nassau Inn, Princeton
(Sponsored by American College of Cardiology and AAFP)

13 **Liver Disease and Ascites**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

13 **Management of Hyperlipidemias**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Genetics**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Inflammatory Bowel Disease**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

17 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

18 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

18 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 **Headache**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

18 **Drug Addiction**
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

19 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

19 **Diabetes Mellitus**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

19 **Perinatal Seminars**
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center, Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

19 **New Developments in Scanning**
Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

19-21 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

20 **Radiology**
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

20 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

20 **Does Psychiatry Exist?**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

21 **Management of Hepatitis**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 **Management of End-Stage Renal Disease**
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 **Abnormalities in Growth Patterns in Childhood and Adolescence**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 **Clinical Pathological Conferences**
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 **Drug Addiction**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

25 **Perinatology and Neonatology Seminar**
7 p.m. — Saddle Brook General Hospital
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

26 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 **Annual Awards Dinner — AMNJ**
6:30 p.m. — The Chanticler, Millburn
(Sponsored by Academy of Medicine)

26 **Child Abuse Revisited**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

27 **In Vitro Studies of Erythropoiesis**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

27 **Pulmonary Embolism**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

28 **Thyroid Diseases**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

June

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

1, 8, 15, 22, 29 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

1, 8, 15, 22, 29 **Psychiatric Case Conferences**
7:30-9:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

1, 8, 15, 22, 29 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

2 **Computerized Axial Tomography**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

2 **Obstructive Lung Disease**
1:00 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

2 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

2
16 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3
10
17
24 **Topics in Oncology**
1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3
4 **Gynecological Laparoscopy**
9 a.m.-5 p.m. — First Day
8 a.m.-3 p.m. — Second Day, Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

4-8 **MSNJ Annual Meeting**
Cherry Hill Hyatt House
Cherry Hill

4 **Fluid and Electrolyte Imbalance**
8:30 a.m. — United Hospitals of Newark
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5
12
19
26 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

7 **Thyroid Diseases**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

7
14
21
28 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

8 **Tuberculosis**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

8 **Trauma and the Emergency Department**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

8 **Acute Renal Failure**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Nephrology Society of New Jersey, N. J. RMP, and Academy of Medicine)

9 **Thanatology**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

9 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

11 **Gastroenterology**
12:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by New Jersey Medical School)

12 **Antibiotics and Surgical Infection**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 **Infertility**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

16 **Update on Psychotropic Drugs**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

16 **Laboratory Interpretations**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

18 **Orthopedic Problems**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

18 **Photographic Panorama of Pediatric Problems**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

21 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital)

22 **Perinatology and Neonatology Seminar**
7 p.m. — Somerset Hospital, Somerville
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

22 **Management of Hypertension**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23-25 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

23 **Visiting Lectures in Ophthalomology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

OBITUARIES

Dr. Sotiris A. Athans

At the untimely age of 58, Sotiris A. Athans, M.D., of Wayne, died at Paterson General Hospital on January 16. A native of Greece, Dr. Athans received his medical degree from the University of Athens in 1938. He briefly practiced general medicine in Athens and then pursued a residency in orthopedic surgery. He limited his work to that specialty until emigrating to the United States in 1952 for further graduate study at the Cook County Graduate School of Medicine in Chicago and at several New York hospitals. He established a practice in Fredericksburg, Virginia, and came to Paterson in 1963. Dr. Athans was chairman of the department of orthopedics at the Paterson General Hospital and a member of the staffs at Barnert Memorial in Paterson, the Fair Lawn Hospital, Chilton Hospital in Pompton Plains, and the Saddle Brook General Hospital.

Dr. John C. Cox

Word has been received of the death on November 5, 1975, of John C. Cox, M.D., a member of our Essex County component. A native of Virginia, where he earned his medical degree from the State University in 1919, Dr. Cox practiced general surgery in the Maplewood area for many years before retiring to Lakewood. Following medical school, he engaged in graduate studies in surgery at the New York Post Graduate Hospital and earned fellowship in the American College of Surgeons. He was also a member of the prestigious New Jersey Society of Surgeons. Dr. Cox had been affiliated with the Orange Memorial Hospital (now the Hospital Center at Orange) and with the Presbyterian Hospital in Newark. He was active in civic affairs and had been both police surgeon and health officer in Maplewood.

Dr. Sidney S. Edelberg

One of Somerset County's senior practitioners, Sidney S. Edelberg, M.D., died on December 23, 1975. Born in New Jersey in 1909, Dr. Edelberg received his doctorate in medicine from New York University in 1933, and came to Bound Brook to practice general medicine and pediatrics. He had been affiliated with Somerset Hospital in the department of pediatrics.

Dr. George W. Finke

At the grand age of 93, George W. Finke, M.D., an emeritus member of our Bergen County component died on December 27, 1975, in Sarasota, Florida. A graduate of Bellevue Medical College, class of 1906, Dr. Finke practiced general and orthopedic surgery in the Hackensack area until retirement in 1956. Ten years later he elected to make Florida his permanent home. He was a Fellow of the American College of Surgeons and of the International College of Surgeons, and a member of the prestigious New Jersey Society of Surgeons. During his years of active practice, Dr. Finke had been Director of Surgery, Director of Orthopedics, and served in the out-patient department and tumor clinic of the Hackensack Hospital.

Dr. William B. Fort

One of Union County's senior and beloved members, William B. Fort, M.D., died on November 19, 1975, at his home in Pompano Beach, Florida. Born in 1894 and a graduate of Jefferson Medical College in 1918, Dr. Fort practiced surgery and gynecology in Plainfield for many years before retirement in 1964. He was a Fellow of the American College of Surgeons, and a member of the New Jersey Society of Surgeons and of the New Jersey Obstetrical and Gynecological Society. Dr. Fort had been affiliated with the Muhlenberg Hospital in Plainfield and the Somerset Hospital in Somerville.

Dr. Philip A. Labate

One of Union County's well-known physicians, Philip A. Labate, M.D., died on January 6. Born in Brooklyn, New York, Dr. Labate was graduated from Georgetown University School of Medicine, class of 1943, and practiced surgery in the Plainfield area for many years. He was chief of surgery at Muhlenberg Hospital in

Plainfield, and on the staffs at the Veterans Administration Hospital in Lyons and the Kennedy Hospital in Edison. Dr. Labate was a fellow of the American College of Surgeons and of the International College of Surgeons, and a member of the American Society of Abdominal Surgeons. He was only 56 years old at the time of his death.

Dr. Fletcher I. Krauss

Fletcher I. Krauss, M.D., a pediatrician who practiced in the Chatham area for 60 years, died on January 8 at the grand age of 90. A native of New Jersey, Dr. Krauss was graduated from Columbia University's College of Physicians and Surgeons, class of 1909, and following internship at New York Hospital came to Chatham to practice general medicine in 1911. He was one of the organizing staff of the Overlook Hospital in Summit when it was founded in 1913. He pursued graduate work in pediatrics, becoming board certified in that field, and from 1922 on devoted his career to that specialty. In addition to his affiliation with Overlook Hospital, he was associated with St. Clare's Hospital in Denville and the Morristown Memorial Hospital. He was a Fellow of the American Academy of Pediatrics. Dr. Krauss served a term as president of the Morris County Medical Society and was active in community affairs, having been a member and president of the Chatham Board of Health and a school physician in that community for 28 years.

Dr. Martin M. Kurzner

A recent transfer from New York to the Bergen County Medical Society, Martin M. Kurzner, M.D., died on December 24, 1975. Born in 1926 and graduated from the University of Arkansas School of Medicine in 1948, Dr. Kurzner took residencies in surgery and obstetrics and gynecology at the Hospital for Joint Diseases, the Bronx Hospital, and Jewish Memorial Hospital in New York. Following two years with the Armed Forces, he established private practice in New York City where he remained until moving his office to Fort Lee in 1973. He had been on the staff at Jewish Memorial, Lenox Hill, and St. Elizabeth's Hospitals in New York and more recently he was affiliated with the Englewood Hospital in Englewood, New Jersey. Dr. Kurzner was certified by the American Board of Obstetrics and Gynecology and was a Fellow of the American College of Surgeons. He was a member of the American College of Obstetrics and Gynecology, the American Society of Abdominal Surgeons, the New York State Surgical Society, and the New York Academy of Science.

Dr. Sidney B. Lavine

One of Mercer County's senior members, Sidney B. Lavine, M.D., died on January 10 at St. Francis Medical Center in Trenton after a long illness. Born in 1905 and a graduate of Middlesex Medical College in London, England, in 1933, Dr. Lavine practiced in the Trenton area until retirement in 1974. He was a board-certified radiologist and had been on the staff at the Hamilton and Donnelly Hospitals in Trenton and was affiliated with the New Jersey State Prison Hospital. His son is a practicing physician in Swarthmore, Pennsylvania, and a brother, Barney, practiced surgery in Trenton until retirement some years ago. Dr. Lavine was a member of the New Jersey Society of Radiologists.

Dr. Edward M. Miller

At the untimely age of 55, Edward M. Miller, M.D., a member of our Bergen County component, died suddenly on January 13. A native of Massachusetts and a graduate of Columbia University's College of Physicians and Surgeons, class of 1944, Dr. Miller came to Englewood for the practice of general surgery, after completing a residency in that field at the Mayo Clinic, Rochester, Minnesota, where he earned the degree of Master of Science in Surgery. He was board certified in his specialty and was a Fellow of the American College of Surgeons. Dr. Miller was on the attending staff at Englewood Hospital and at the Bergen Pines Hospital in Paramus.

Dr. Richard Outwin

Richard N. Outwin, M.D., of Millburn, died on December 24, 1975, in Overlook Hospital, Summit. Born in Hillside, New Jersey, in 1915, Dr. Outwin received his medical degree from Long

Island College of Medicine in 1941, and pursued residencies in urology at Charity Hospital in New Orleans and at the Graduate School of Medicine of the University of Pennsylvania, becoming board certified in that specialty. He practiced briefly in Newark and then in Kearny for many years. He was on the staff at West Hudson Hospital in Kearny and at the Presbyterian and American Legion Hospitals in Newark. Dr. Outwin was active in civic affairs and was a trustee of the Kearny Pioneer Boys Club.

Dr. Victor Wagner

A member of our Hudson County component, Victor Wagner, M.D., died in Miami, Florida, on December 24, 1975. A native of New York, Dr. Wagner earned his medical degree from the University of Maryland School of Medicine in 1945 and took graduate work in obstetrics and gynecology, becoming board certified in that field. He practiced in Jersey City for many years and was affiliated with the Jersey City Medical Center and the Fairmount, Christ, and Margaret Hague Hospitals there. Dr. Wagner was only 54 years old at the time of his death.

Dr. Marc J. Wallace

One of Passaic County's senior members, Marc J. Wallace, M.D., died on December 29, 1975, at St. Mary's Hospital, Passaic. Born in South Dakota in 1908, Dr. Wallace had practiced in Clifton since he completed internship at St. Mary's Hospital in 1935, having received his medical degree from the University of Minnesota School of Medicine in 1934. He practiced general medicine and surgery and was industrial physician for several local firms. He had been affiliated with the surgical department at St. Mary's Hospital in Passaic. Dr. Wallace was active in ham radio operations and was honored by the Radio Relay League for his part in carrying out two-way radio communications with more than 100 countries and continental areas in setting up voice communication for servicemen and their families during World War II and the Korean action.

Dr. Clarence B. Whims

Word has just been received of the death in Palm Beach, Florida, on April 17, 1975, of Clarence B. Whims, M.D., long a practicing internist in Atlantic City. Born in 1904 and graduated from the Jefferson Medical College, class of 1927, Dr. Whims specialized in rheumatology and was board certified in internal medicine. He had been chief of medicine at the Atlantic City Hospital and was associated also with the Atlantic County Tuberculosis Hospital and the Shore Memorial Hospital at Somers Point. Dr. Whims was a Fellow of the American College of Physicians and a member of the American Rheumatism Association.

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 102, Hopewell, New Jersey 08525.

BOOK REVIEWS

Synopsis of Pediatrics. Fourth Edition. Jomes G. Hughes, M.D. St. Louis, Mosby, 1975. Pp 1070. (Softbock — $15.50)

The pediatric group at the University of Tennessee has written the fourth edition of this synopsis, first published twelve years ago. Of the thirty-four contributors five are not now in Tennessee.

Synopsis is probably a misnomer for this volume of 1070 pages. It should be considered a textbook and its value measured in terms of the other currently available textbooks in the field. All textbooks have their strong and their weak points. The strong points here are the sections on infectious diseases, educational health, genetic counseling, and fluid balance. The weak points are scattered.

The T and A discussion is good though the occurrence of congestive heart failure with obstruction is not mentioned. I believe the authors push too hard for myringotomies. Ampicillin-resistant hemophilus influenza is not mentioned. Group B streptococcal infections are not mentioned in the section on the newborn. Amoxicillin, a good drug, is not mentioned. I doubt that many physicians are using ipecac for spasmodic croup. Perhaps we should. The discussion on cryptorchidism is vague. Erythema nodosum is not mentioned. The weakest point is the lack of references, except for the bibliography, in the section on mental retardation and learning disorders.

There are many excellent charts, tables, and photographs. Certainly this book should be available in all medical school and hospital libraries for those who would like a synopsis larger than a handbook.

Solomon J. Cohen, M.D.

Suggestions of the Devil: The Origins of Madness. Judith S. Neomon, PhD. Gorden City, New York, Anchor Press/Doubledoy, 1975. Pp. 226. ($2.50)

This book contains a plethora of learning and a dearth of understanding. The title does not fit the scholarly content and historical background that brings the life order of the middle ages into remarkably clear focus. The author's knowledge of medieval canon law and Justinian Roman law as applied to criminal responsibility, civil rights, and testamentary capacity is illuminating. She has command of the genealogy of current terms arising from Hippocrates' humoral principles, the eleventh century Constantine, Empiricist of Alexandria, who predicated his pneuma, "spirit" (Bergson's 'Elan Vital') on ground work laid by Anaximes, a 6th century B.C. Milesian and first century Areteus of Capodocia. The book is salted with anecdotal examples comparing therapeutic approaches of antiquity to latter-day practice. But like present-day legislators who would allow the mentally sick to roam free to scavenge our city garbage cans or to die with their rights on, the author fails to grasp the nature of emotional illness.

A point-counter-point theme through the book with references to Ken Kesey, R.D. Laing, Katherine Anne Porter, and Kafka tends to support the philosophical conceit that the presumably insane are, in fact, saner than the normal inhabitants of a mad world. Furthermore, diabolic possession as a basis for evil, equated with insanity re-arising in force in the 1970's may become the hallmark of the 20th century as the Malleus Malefacarum marked the fifteenth. Our present laws concerning criminal responsibility differ little from Justinian's.

The author has all the right words but somehow the feeling that comes with responsibility for care of the afflicted is lost to this reader. Of interest is the omission of any mention of Freud in comparative review of modern and medieval concepts. His contributions to human understanding seem destined to be submerged as he himself feared they might be by the unenlightened human who cannot bear the overwhelming burden of self-understanding, as the seeds of insanity lie dormant in each and every one of us. It takes medical experience to accept this fact and to live at peace with it.

Ira S. Ross, M.D.

Basic Emergency Medicine. R. H. Miller ond J. R. Contrell, editors. St. Louis, Masby, 1975. Pp 233. Illustrated. (softback — $6.95)

There have been many books on emergency medical services during the past few years, since that phase of medicine became most important. The one here reviewed covers all systems in emergency medicine and was written primarily for paramedic training; it is well suited for this purpose. It may also be used by nurses as a reference and for physicians who are just entering the field of emergency medicine. Except for purposes of teaching the individual who has had basic knowledge or training in emergency medicine and wishes to go on to paramedic work, the book would be too complicated. The illustrations are simple but describe the subject adequately.

Jack R. Karel, M.D.

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How many side effects would you expect from a drug that's taken 140 million times a day?

Like any active, effective pharmacologic agent, aspirin may produce side effects in certain patients. But for a drug that's administered millions of times each day, billions of times a year, aspirin remains exceptionally well tolerated.

According to the American Medical Association Department of Drugs,[1] serious adverse reactions from usual analgesic doses of aspirin occur infrequently. In therapeutic doses, the most significant side effects are gastrointestinal in nature—and may include dyspepsia, nausea, vomiting and occult G.I. bleeding.[1-3] When single or even repeated analgesic doses are given, the incidence of dyspepsia is small.[2,3] In fact, many patients who claim they cannot tolerate aspirin, accept it quite well when it is disguised or given on a blind basis.[2,3]

Allergic reactions to aspirin (ranging from minor skin rash to urticaria to anaphylaxis) are also relatively uncommon—with the incidence estimated by some to be 0.2% or less, in the general population.[4,5] Although such reactions may be seen more frequently in patients with respiratory allergy—particularly asthma—the incidence here is still only 2% to 4%[4]...with sensitivity occurring primarily in late-onset, non-atopic asthmatics exhibiting concurrent nasal polyposis.[6]

So the next time the subject of aspirin side effects is raised, consider the benefit-to-risk ratio of aspirin as it actually exists...its undiminished efficacy over 75 years of clinical use...and its remarkably low cost to patients—about a penny per tablet.

And when you do decide on aspirin, specify the brand that's synonymous with quality and dependability—Bayer® aspirin.

References: **1.** AMA Department of Drugs: AMA Drug Evaluations, 2nd Edition, Acton Massachusetts, Publishing Sciences Group, Inc. p. 264. **2.** Beaver, W.T.: Am. J. Med. Sci. *250*:577 (Nov.) 1965. **3.** Beaver, W.T.: Modern Treatment 5:1094 (Nov.) 1968. **4.** Weiss, H.J.: JAMA *229*:1221 (Aug. 26) 1974. **5.** Lampe, K.F., in Medical News: JAMA *229*:1704 (Sept. 23) 1974. **6.** Falliers, C.J.: J. Allergy Clin. Immunol: 52:141 (Sept.) 1973.

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EDITORIALS

Great Expectations

This editorial was prompted by the action of the House of Delegates at its December special meeting in which it turned down the recommendation by the Joint Ad Hoc Committee on Professional Liability which stated: "That MSNJ develop, and cause to be implemented through appropriate legislation, a Medical Injury Compensation Program, whereby equitable, prompt compensation would be available for those injured under medical care other than by negligence." (*JMSNJ* 73:162-163, February 1976).

In this age of consumerism the public has "great expectations" of the doctor; when they are not met, litigation is uppermost in some minds.

Apparently, most of the members of the House live in some "secluded rendezvous" far removed from the harsh facts of life as they now exist. Society anticipates freedom from disease, cure, and "immortality"; they expect operative results that are perfect whether the doctor is at fault or not. It is imperative that this be understood by physicians. No-fault automobile insurance demonstrates that the public expects to be paid for everything that happens, no matter who is at fault. We live in a litigious society. This was best illustrated by Judge Pashman of the New Jersey Supreme Court when he ruled, in the famous "Somberg case," that even though no one was at fault, the jury must decide who is to pay. In the "Somberg case" everyone had done exactly what should have been done; the doctor was neither guilty of malpractice nor negligence; the makers of the instrument were not guilty of manufacturing a product with flaws; the hospital was not guilty in the way it treated the instrument. Yet, the courts ruled that "someone must pay." At one time lawyers were trained to ask whether anyone was liable and should pay. Now lawyers are taught to decide who it is that can best afford to pay.

As I listened to the House debate this matter, it became evident that the ego of some physicians has become so sensitive to the remotest semblance of "fault" that even a good idea such as this, which would take many cases out of the area of professional liability, was swept aside in a virtuous and self-serving flood of rhetoric and emotion. The logical reasoning that makes the doctor an outstanding professional was not apparent.

Politicians believe that health care should be in the public domain and not in the hands of the health professional. We are regularly being told that we must have consumers on our boards and regulating bodies. Why? It is evident that the public doesn't trust us any longer. They believe we are hiding things from them and that only the consumer, in a position to see the inside workings of the medical profession, can save the public from the "horrendous disaster" being forced upon it by medical practitioners.

The recent series of articles in *The New York Times* (January, 1976) further demonstrates this lack of confidence. This only can mean more litigation, not less. How wise it would have been to follow the recommendations of the Committee and set up a "Medical Injury Compensation Program" in order to stem this flood-tide and remove 95 percent of the cases from the professional liability docket.

The public believes the physician is capable of perfection in everything he does and therefore demands and expects perfection in every case. Our capabilities have been oversold. If miracles do not occur, they will sue.

It would be better to have a "Medical Injury Compensation Program" that could cover this type of unhappiness with lack of perfection rather than the continuous bombardment of professional liability cases with all of their emotional and financial trauma. Although not many of them are won by plaintiffs, the anxiety, tension, and time that they take are not worth it even when the physician is victorious. Let us reconsider our hasty emotional reaction and reinstate this suggestion of the Joint Ad Hoc Committee on Professional Liability.

Arthur Bernstein, M.D.

Another Opinion

With all due respect to my noted colleague, a brilliant physician and the holder of many offices in the medical organizations of the county, state, and national units, I feel that Dr. Bernstein's editorial is an emotional response to the problem. The reference to "secluded rendezvous," "ego" trips, and the lack of "logical reasoning" are not valid comments about one's peers. The fact that another viewpoint was overwhelmingly adopted by the special meeting of the House of Delegates in December, 1975 shows that clear-thinking medical professionals were ready to say: "This far and no farther." I am, of course, referring to the defeat of a resolution which would have set up a program of compensation for "non-negligent" injuries or untoward results.

In this Bicentennial Year, it is time for the physician to stand up and remind the litigious element of the public that the integrity of our peers is still of the very highest quality. A "no-fault" type of physician liability insurance could, by innuendo, damage a good man's reputation. Society may expect a perfect result every time, but no doctor has ever guaranteed a perfect result.

In this day of the liberated "social welfare judges," the "Somberg Case" is the law of the land. But the law is what each judge interprets it to be. Judge Pashman stated that even though no one was at fault, *someone* must pay. Perhaps tomorrow or the day after "justice" may win. It has been stated many times that the law schools of today do not teach the student to ask, "Who is at fault?" but rather, "Who is best able to pay?"

Today, people increasingly believe that someone else should pay the consequences of misfortune. They hold society responsible if things go wrong. Our country did not become the great democracy that it is on that philosophy. We, the physicians (a minority group), cannot fund all the risks. The recent lurid journalism of the prestigious *New York Times* fosters the idea that American physicians are practicing lethal medicine. Nothing could be farther from the truth!

I believe that physicians should not sponsor such legislation. However, even if we should assume that the theme promulgated by Dr. Bernstein and the Ad Hoc Committee were to be implemented, there are two questions to be answered:

(1) How could it possibly be financed (we all know what the legislature has done to delay funding education in New Jersey)?

(2) How could you possibly control what would be compensable?

The reference to no-fault auto insurance is a perfect example of how the legal fraternity can figure a way around good legislation — for every state with no-fault auto insurance is now complaining of "running in the red" and creating a monster which may possibly fail very soon.

Three principles of the American Medical Association must be stressed:

(1) to preserve professionalism
(2) to preserve individualism
(3) to preserve the integrity of the relationship between an individual patient and his physician.

"Non-negligent" medical compensation to any and all would certainly not preserve any worthwhile principles.

Seymour Taffet, M.D.

One Snake or Two?

As artists are free to do, our cover-artist chose to use the two-serpent staff as his representation of the caduceus for his own reasons. Several historians have pointed out this break with historical legendry and tradition to us. By way of response, our deceased former editor, Henry A. Davidson, once spoke quite eloquently on the matter as follows:

The Rod of Comfort*

"Thy rod and thy staff they comfort me." So it is written in that most solacing and poignant of poems, the 23rd Psalm.

*JMSNJ 66:447-448, August 1969

Physicians are the lineal descendants of the priests who carried the rod and staff of comfort. And the symbol of medicine is the snake-entwined staff, the caduceus.

It seems pointless to argue whether you will take your caduceus with one snake or two. Historical theorists say that there is a difference — Aesculapius was associated with the one-serpent staff, since, legend says, he had to stamp out a snake with the stick — and the snake crawled up and entwined itself around the staff. A patient had apparently been killed by a thunderbolt, and the snake somehow revived him. Snakes were supposed to be immortal anyway — they seem to be reborn annually. When Aesculapius himself died, he became a star, still visible in the southern heavens. The astronomical name for that star is Ophiuchus: the snake-bearer.

Caduceus is a Latinization of a Greek form meaning "wand-bearer," not "snake-bearer." The reference was to the staff carried by messengers. The messenger of the gods was Mercury — or, if that is not all Greek to you, Hermes. At first he carried a simple olive branch (symbol of peace, as befits a herald who takes messages but does not take sides). One day he saw two snakes fighting. He pushed his staff between them to separate the combatants, using the olive branch again in its pacific function. The snakes crawled up the stick, glared at each other across the top of the staff, but were kept from fighting by the firm rod between them. So was born the caduceus — the two-snaked rod, which compulsively pure historians distinguish from the one-snaked staff of Aesulapius.

At any rate, it was all part of ophism — snake worship. We think of snakes as death-dealing animals as, indeed, many of them are. But snakes were associated in primitive minds with life-giving. There was the annual renaissance of the snake — or so it seemed. Primitives recognized the therapeutic power of some snake venom. Also the snake seemed magic — it could crawl into the earth — vanish — reappear. There were snake charmers who could do wonders with these graceful beasts. Snake dances were part of the religious ritual in many widely separated cultures. Some snakes could breathe fire — these were called dragons. Snakes appear frequently in the Bible, usually under the synonym "serpent." So the snake became a symbol for fertility and for shrewdness, recovery, and longevity. Snakes, serpents, and dragons appear in the iconography of many countries and cultures: the headdress of the Pharaohs, the flag of old China, the cult of the Hopi Indians, the cobra culture of the Buddhist, and the pantheon of the Minoans — all saluting this strange animal.

Display of the caduceus as a medical insigne is relatively modern. In the U.S. civil service, specifically the U.S. Public Health Service, the caduceus was first used in 1858. The Army did not adopt it as a medical insigne until as late as 1902. In the Navy, it does *not* symbolize the medical officer. The AMA did not incorporate it on their emblems until 1912.

Snakes are associated with healing among the Indians of America and among the Indians of India. In 19th century America, the vendor of "snake oil" as a panacea was a common part of the scene. It was usually advertised as an old Indian Snake Oil, attesting to its double potency — bearing the approval of sage folk like the Indians but also drawing some of its power from association with snakes. And the Indians of Asiatic India have, for centuries, made an extract from a snake-plant to cure madness and relieve dizziness. This plant, *Rauwolfia serpentina,* really has nothing to do with snakes except that its root looks snakey — which is what the *serpentina* means. But it inherited some of the mystery of ophism — and then, much to the surprise of modern chemists, it was found that the root really contained potent alkaloids. The best known, reserpine, displays in its name the ubiquitous serpent; re*serp*ine. Its heritage includes the other Indian snake root, beloved by last century's American medicine men. So we come full cycle: the primitive serpent with its mythical powers of fertility, rejuvenation, and shrewdness; the modern snake-root with its versatile tranquilizing and hypotensive effects; and in between the iconographic snake that entwines itself on the rod and the staff and forms the comforting symbol of the healing art.

A.K.

210th Annual Meeting
June 4-8, 1976
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Effectiveness across the spectrum of most common forms of insomnia

Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

- Awake
- REM
- Stage 1
- Stage 2
- Stage 3
- Stage 4

Awake too long

Awake too often during the night

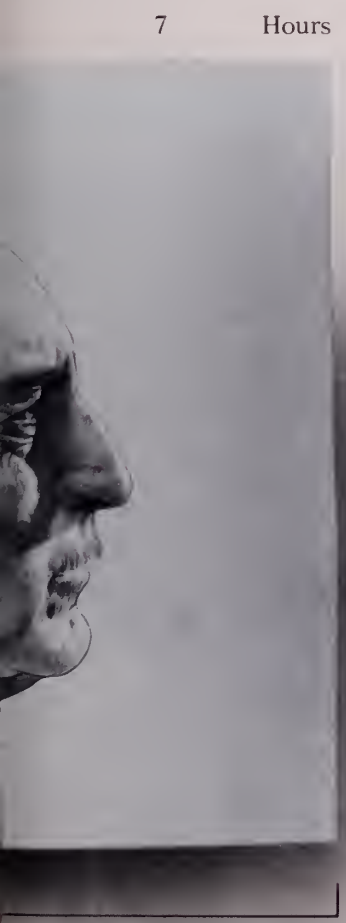
The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories.[1-4]

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.

Broad-spectrum medication for the most common forms of insomnia



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- induces sleep rapidly
- reduces nighttime awakenings
- lengthens total sleep time

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Please see following page for a summary of complete product information.

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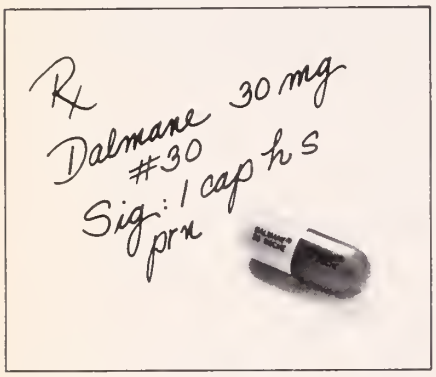

Objectively proved in the sleep research laboratory, Dalmane

- □ induces sleep within 17 minutes, on average
- □ reduces nighttime awakenings
- □ provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended

Contraindications: Known hypersensitivity to flurazepam HCl

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
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ORIGINAL ARTICLES

Ligation of the internal iliac arteries is an important procedure for use by the obstetrician-gynecologist in control of operative and spontaneous hemorrhage. This paper reviews the anatomy of the internal iliac arteries, the technique of ligation, the circulatory effects after ligation, mechanism of action, complications, and indications for its use. The procedure is simple enough to be in the armamentarium of every trained pelvic surgeon.

Internal Iliac Artery (Hypogastric) Ligation for Control of Obstetric and Gynecologic Hemorrhage*

M.A. Pelosi, M.D., A. Langer, M.D., T.S. Li, M.D./Newark

Ligation of the internal iliac arteries as a procedure to control severe pelvic hemorrhage has been advocated since the last century. Howard Kelly of Baltimore, in 1894, reported its first gynecologic use as an emergency operation to control bleeding from cervical cancer.[1] It was infrequently used prior to 1954 when Hecht and Blumenthal reported its efficacy in a case of recurrent bleeding after total abdominal hysterectomy.[2] Since then several articles have described the importance of this procedure for control of life-threatening hemorrhage in obstetrics and gynecological practice.[3-10]

Ligation of the internal iliac arteries has been recommended when conventional methods fail to control spontaneous, operative, or postoperative hemorrhage, and prophylactically to insure decreased blood loss when operative hemorrhage and technical difficulties are anticipated. Some authors[3, 4, 7, 9] also consider its elective use for resident teaching a valid indication.

Anatomy

The internal iliac (hypogastric) artery, the largest artery in the true pelvis, supplies the walls and viscera of the pelvis, organs of reproduction, buttocks, and the upper inner aspect of the thighs. The artery arises at the bifurcation of the common iliac, descends into the true pelvis and divides into an anterior and a posterior trunk from which various branches lead. Anteriorly and medially, the artery is covered by peritoneum with varying amounts of fat and areolar tissue. Under the cover of the peritoneum, the ureter frequently descends along the anterior border of the artery. Immediately posterior to the artery are the hypogastric vein and the origin of the common iliac vein; laterally, the external iliac vein lies adjacent to the artery (Figure 1). In the most common pattern the posterior division leads to three branches: the iliolumbar, the lateral sacral, and the superior gluteal. The anterior division leads to nine branches: the obturator, the internal pudendal, the inferior gluteal, the umbilical (obliterated), the superior vesical, the inferior vesical, the middle hemorrhoidal, the uterine and the vaginal.[10] These branches anastomose extensively in the normal pelvis.[5, 6]

Procedure

The technic of ligation is simple. First the iliac arteries (common, internal, and external) are palpated and visualized through the posterior peritoneum. The ureter is identified. The peritoneum over the common iliac is elevated, cut and reflected medially with the attached ureter. The length of the incision should be approximately 8 cm. We favor an incision made in the broad ligament, between the Fallopian tube and the round ligament, as the point of entrance into the retroperitoneal space. With careful

*From the Department of Obstetrics and Gynecology, Martland Hospital Unit, CMDNJ, New Jersey Medical School, Newark.

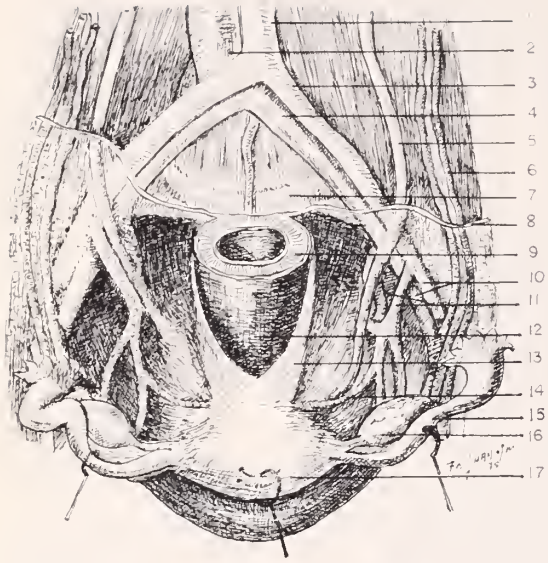

Figure 1

1. Aorta
2. Inferior vena cava
3. Left common iliac artery
4. Left iliac vein
5. Ureter
6. Ovarian vessels
7. Sacral promontory
8. Peritoneum
9. Rectum
10. External iliac artery and vein
11. Internal iliac artery and vein
12. Pouch of Douglas
13. Sacro-uterine ligament
14. Uterine artery
15. Fallopian tube
16. Ovary
17. Uterus

blunt dissection the ureter is identified and retracted medially, attached to the peritoneum. The areolar and fatty tissues are dissected from the anterior and lateral surfaces of the internal iliac artery and a Babcock clamp is placed around the artery, which is then lifted out of its bed. A Mixter clamp is then used for separation of the areolar tissue between the posterior wall of the artery and the anterior surface of the internal iliac vein. Two #1 silk or chromic catgut ligatures are passed under the internal iliac artery within the proximal 2.5 cm. of its origin from the common iliac and are tied approximately 0.5 cm. apart (Figure 2). There is no need to divide the artery. This procedure is done bilaterally. We favor the transperitoneal approach, because only one incision is necessary, it is easy to ligate the ovarian vessels if indicated, and pelvic pathology can be visualized.

Effects

The presence of pathways of collateral circulation in the pelvis after ligation of the internal iliac arteries was demonstrated by

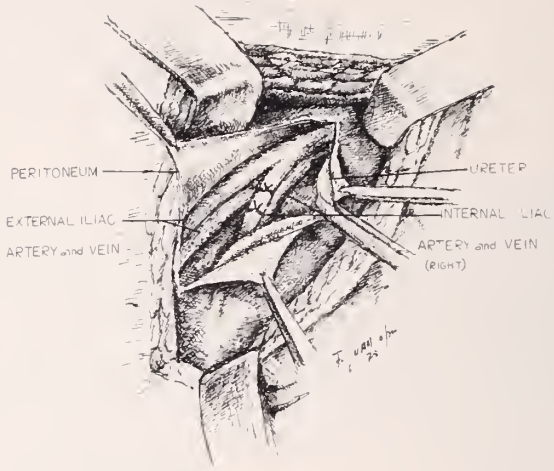

Figure 2

Burchell and Olson[11] using pelvic arteriograms. Three arteries constitute the principal alternate routes of pelvic blood supply: the lumbar, middle sacral, and superior hemorrhoidal arteries. These arteries anastomose with the iliolumbar, lateral sacral, and middle hemorrhoidal arteries (all branches of the internal iliac artery) thus bypassing the hypogastric block. All of these vessels are of small caliber but they function immediately after hypogastric ligation; they do not undergo compensatory growth, even after several years. There is no recanalization of the arteries after ligation and collateral circulation across the midline is minimal. Unilateral ligation produces the same anastomosis on that side but no alterations contralaterally (Figure 3).

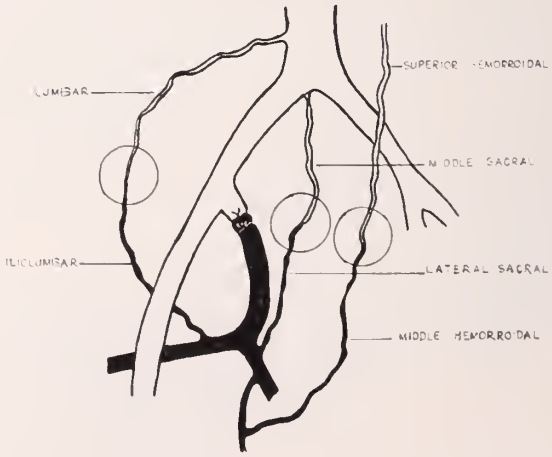

Figure 3 — Principal anastomoses (schematic) after internal iliac artery ligation (Modified from Burchell and Olson: *Am J Obstet Gynec* 94:117, 1966)

Hemodynamic studies have demonstrated that the fundamental change after ligation is the decrease of pulse pressure allowing stable clot formation and not the complete shutoff of blood flow as previously believed.[12] The decreased pulse pressure is due to the small diameter of the anastomosis involved in the collateral blood supply. The small caliber inhibits rapid passage of blood, avoiding the trip-hammer effect of arterial pulsation, transforming an arterial into a vein-like system. Ligation thus produces distal hemostasis by allowing stable clot formation. If a branch such as the uterine artery is severed after ligation, there is marked blood flow from the cut end, demonstrating adequacy of the anastomosis.

Results of Other Studies

Clinical evidence shows that the pelvic blood flow is adequate after ligation. There is virtually no tissue necrosis after the procedure. Burchell and Mengert[3] and Reich and collaborators[6] have reported large series of patients who had undergone hypogastric artery ligation with no deleterious effects. Our experience with this procedure is similar. Several cases of successful term pregnancies after bilateral internal iliac artery ligation, even when combined with bilateral ovarian artery ligation, have been reported.[13-15]

Complications related to this procedure are infrequent, therefore the specific incidence has not been reported. Valle and Massone[10] conducted a survey on complications related to ligation of the hypogastric arteries and received reports of ureteral and vesical fistulas, necrosis of the buttocks, atonic bladder, circulatory disturbances in the lower extremities, and spasm of the external iliac artery requiring amputation of the leg. Injury of the internal iliac veins or arteries is another potential complication.[3]

Sack[16] pointed out that no long-term follow-up of these patients has been reported. With advancing years and the development of occlusive vascular disease, or the need for future pelvic surgery or irradiation, the past performance of this procedure as a prophylactic measure or for teaching purposes may not prove to be entirely without hazard. The problem is that the new collateral circulation may be adequate under normal conditions, but might prove incompetent under stress. Obviously, such potential complications are of little consequence if the procedure is used for otherwise uncontrollable hemorrhage.

The safety and effectiveness of therapeutic hypogastric artery ligation as a life-saving measure is well established.[3, 6, 10] Our experience has substantiated this on several occasions. However, the value of prophylactic ligation to ensure decreased blood loss and a drier operative field to reduce the need for blood replacement and to minimize postoperative morbidity when operative hemorrhage and technical difficulties are anticipated is difficult to evaluate. Its prophylactic use has been advocated in patients with tumors, infections, hematomas, adhesions, uterine atony, abdominal pregnancy, radical surgery, extensive endometriosis, bleeding rectovaginal fistulas, and in patients who are unwilling to accept blood transfusions because of religious beliefs.[6, 7, 9, 10] Results of prophylactic ligation in such patients are difficult to evaluate because of the absence of controlled studies which compare patients treated with and without prophylactic ligation prior to definitive gynecologic surgery.

Results of Our Study

To determine the advisability of hypogastric artery ligation as a prophylactic measure in a situation in which significant operative blood loss might be anticipated, we evaluated 108 patients who were to have elective cesarean hysterectomy.[17] Bilateral internal iliac artery ligation prior to the hysterectomy was performed in 52 patients (48 percent); in all cases, the procedure was performed electively. The procedure was not used in any case for control of already established bleeding.

Our results indicate that prophylactic ligation of the hypogastric arteries is of questionable value. We were not impressed by an obvious reduction of operative blood loss, a drier operative field, or a technically easier procedure. Blood loss, as demonstrated by the frequency and amount of

transfusions and the drop in the hemoglobin in those patients without transfusions, was somewhat reduced as compared to that in the nonligated group, but it was still surprisingly high and the difference was not statistically significant. The overall incidence of complications was less with prophylactic ligation but again was not significant. However, the addition of this elective procedure did not seem to have any harmful effects.

Based on our experience we have mixed feelings about the prophylactic use of this procedure. We feel there are definite indications for hypogastric ligation for therapeutic purposes in order to control spontaneous, operative, and postoperative hemorrhage when conventional methods have failed. In such situations, the procedure may be life-saving. However the benefits of prophylactic ligation are open to question. We believe, however, that familiarity with the technique is essential for all those doing obstetrics and gynecologic surgery. This operation should be demonstrated and taught to residents whenever possible and, since specific indications to control hemorrhage are relatively rare, use must be made of educational indications.

The identification and exposure of the internal iliac arteries and the technique of ligature can be explained, demonstrated, and practiced during many pelvic operations, without actually ligating the vessels. The procedure is simple enough to be in the armamentarium of every trained obstetrician-gynecologist.

References

1. Kelly HA: Ligation of both internal iliac arteries for hemorrhage in hysterectomy for carcinoma uteri. *Bull Johns Hopkins Hosp* 5:53–54, 1894

2. Hecht EL, Blumenthal ED: Recurrent bleeding from the vaginal vault following total abdominal hysterectomy. *Am J Obstet Gynec* 67:195–197, 1954

3. Burchell RC, Mengert WF: Internal iliac artery ligation: A series of 200 patients. *Int J Gynec Obstet* 7:85–92, 1969

4. LeCocq F Jr: Internal iliac artery ligation. *Am J Obstet Gynec* 95:320–326, 1966

5. Reich WJ, Nechtow MJ: Ligation of the internal iliac (hypogastric) arteries: A life-saving procedure for uncontrollable gynecologic and obstetric hemorrhage. *J Int Coll Surg* 36:157–168, 1961

6. Reich WJ Nechtow MJ, Keith L: Supplementary report on hypogastric artery ligation in the prophylactic and active treatment of hemorrhage in pelvic surgery. *J Int Coll Surg* 44:1–8, 1965

7. Roth E, Glynn R: Internal iliac artery ligation. *Obstet Gynec* 24:49–55, 1964

8. Sagarra M, Glasser T, Stone ML: Ligation of the internal iliac vessels in the control of postpartum hemorrhage. *Obstet Gynec* 15:698–701, 1960

9. Siegel P, Mengert WF: Internal iliac artery ligation in obstetrics and gynecology. *JAMA* 178:1059–1062, 1961

10. Valle G, Massone G: Hypogastric vessel surgery in obstetrics and gynecology. *Obstet Gynec Surg* 21:757–783, 1966

11. Burchell RC, Olson G: Internal iliac artery ligation: Aortograms. *Am J Obstet Gynec* 94:117–124, 1966

12. Burchell RC: Internal iliac artery ligation: Hemodynamics. *Obstet Gynec* 24:737–739, 1964

13. Given FT, Gates HS, Morgan BE: Pregnancy following bilateral ligation of the internal iliac (hypogastric) arteries. *Am J Obstet Gynec* 89:1078–1079, 1964

14. Mengert WF, Burchell RC, Blumstein RW, Daskal JL: Pregnancy after bilateral ligation of the internal iliac and ovarian arteries. *Obstet Gynec* 34:664–666, 1969

15. Shinagawa S: Extraperitoneal ligation of the internal iliac arteries as a life-and-uterus-saving procedure for uncontrollable postpartum hemorrhage. *Am J Obstet Gynec* 88:130–131, 1964

16. Sack RA: Bilateral internal iliac (hypogastric) artery ligation to control obstetric and gynecologic hemorrhage. *Am J Obstet Gynec* 116:493–497, 1973

17. Pelosi M, Langer A, Hung C: Prophylactic internal iliac artery ligation at cesarean hysterectomy. *Am J Obstet Gynec* 121:394–398, 1975

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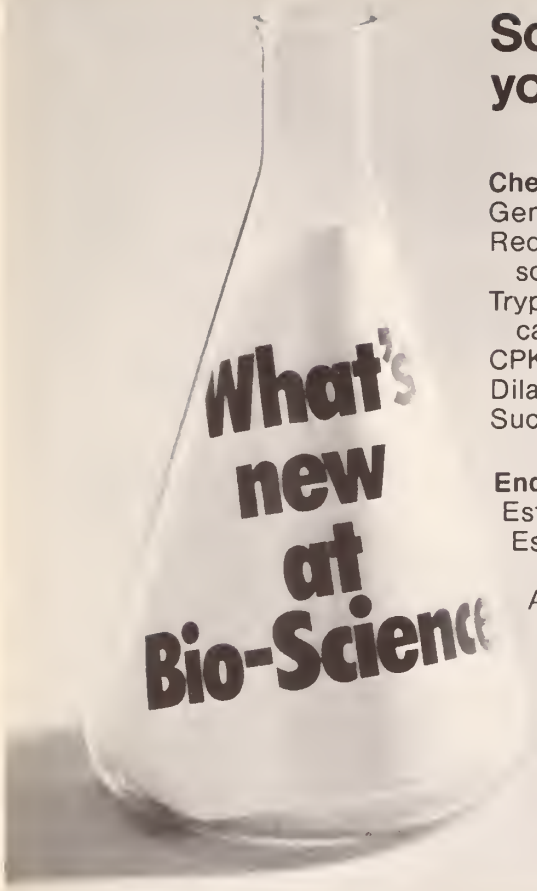

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Mass screening for the Tay-Sachs gene in five communities in New Jersey has revealed the presumptive incidence of the carrier state for this gene in the range of 1:19 to 1:33 (average 1:26). There were 1805 individuals tested in a program which meets all the necessary criteria to justify the genetic mass screening effort.

Mass Screening in New Jersey for Tay-Sachs Gene*

Theodore Kushnick, M.D., and Norma Diamond, B.A./Newark

Tay-Sachs disease is a progressive, degenerative central nervous system affliction which causes death prior to the age of five years. The Tay-Sachs gene is carried in hidden autosomal recessive fashion by normal-appearing individuals and is predominantly found in the Ashkenazi Jewish population which originated in Eastern Europe. In descendants of this population, the carrier state occurs with a frequency of approximately one in 30 individuals. While carriers of the gene are perfectly normal in all respects, when *two* carriers marry and produce offspring, there is a high risk (1 in 4 or 25 percent) for them to have a child afflicted with the fatal disease. Overall, approximately one in 3,600 of the progeny of susceptible Jews will be afflicted with Tay-Sachs disease.

Despite the fact that the gangliosides of Tay-Sachs disease have been accumulating in the nerve cells of the brain from early in prenatal life, the afflicted child will have a normal development until the age of 4 to 8 months. When symptoms do develop, they are followed by a progressive downhill course. Initially, there is mild muscle weakness and an increased startle response to sudden noises. This hyperacuesis causes the baby to extend his arms, flex his legs and assume an opisthotonic position. During the next 1 to 2 months, the child loses the ability to sit up, as well as other motor functions which may have been previously achieved. At this time there is decreased vision and ophthalmologic examination usually reveals the characteristic cherry-red spot in the retina, seen in Tay-Sachs and other lipid nervous system diseases. This abnormality is actually an accentuation of the normal red macula area by virtue of its being surrounded by nerve fibers that have had increasing infiltration with gangliosides.

The baby demonstrates progressive decreased awareness of his environment and decreased activity. By 18 months of age, the child is paralyzed and blind, unable to eat, becomes increasingly constipated, and develops decubitus ulcers. He subsequently exhibits frequent convulsions which increase despite anti-convulsant medication. There is progressive head enlargement because of the central nervous system accumulation of the gangliosides.

The last few years of the child's short existence are spent in a vegetative state and death occurs between the age of 3 and 5 years, with an average life of 40 months. Death is usually due to intercurrent infections, including aspiration pneumonia. It is impossible to attempt to calculate the tremendous emotional costs to the family, but the financial costs for medical and hospital care amount to $10,000 to $50,000 per year.

Inasmuch as Tay-Sachs disease is a lethal disease for which there is no treatment available at present nor likely in the future, the attempts to screen for the carrier state for the gene became justified when certain criteria were met. These criteria included the following parameters: (1) a thorough knowledge of the course of the disease,

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(2) a target screening population who demonstrate an increased gene frequency over that of other populations, (3) a target population of proper age (i.e., procreative age in persons with an untreatable condition), (4) a simple, accurate, sensitive, and specific screening test to detect carriers, (5) a feasible intrauterine diagnostic test which can differentiate between normal carriers similar to the parents and afflicted fetuses who would be born with the *disease,* and (6) available follow-up genetic counseling of the individuals who were detected as carriers.

Voluntary mass screening for Tay-Sachs gene carriers is in a category which meets all of the criteria listed above and justifies such efforts. The purpose of this paper is to report the results of mass screenings which were conducted in five communities in New Jersey.

Materials and Methods

In an effort to reach the greatest number of individuals in a mass screening program, the format developed by Kaback and O'Brien,[1] which was proved in the Baltimore-Washington area, was followed. One member of the genetics unit of the New Jersey Medical School was assigned as liaison person for coordination of volunteer groups, such as the New Jersey Tay-Sachs and Allied Diseases Association, and the religious community. She arranged a speakers bureau, organized physician education at the local community hospitals, and made the physical arrangements at the Jewish centers as outlined by Kaback and O'Brien.[1] The CMDNJ External Relations Department provided television and radio announcements and ethnic newspaper items. These activities required many weeks of organization prior to each screening.

At the screening center volunteers registered and assisted with the completion of questionnaires, provided "babysitting" as necessary, and directed individuals to each of the testing stations manned by CMDNJ-New Jersey Medical School students. Husbands of pregnant suspects and persons who had had previous difficulties with venipuncture were given special attention. The local community emergency ambulance corps provided personnel and cots for such individuals.

All medical judgments and answers to questions with regard to the disease and the mass testing were referred to the physicians from the New Jersey Medical School — Genetics Unit, who were present at each screening.

The determination of hexosaminidase A in the serum is based on the enzymatic release of a fluorescent label from a "tagged" substrate (4 methyl umbelliferone-2-acetamido-2-deoxy-D-glycopyranoside), with fluorescence measurements by a Beckman ratio fluorometer.[2] The amount of released substrate label is proportional to the amount of enzyme present in the serum. The determination is based also on the preferential inactivation of hexosaminidase A by pH or heat methods, with the final result of total serum hex A and B activity minus the hexosaminidase B activity (which remains after the pH or heat inactivation) being equal to the amount of hexosaminidase A. The results are then calculated as the percentage of the total of A and B which is hexosamonidase A activity. By this technique, the normal serum percentage range of hex A is equal to 61-79, carrier range is 37-60, homozygote Tay-Sachs disease is one to 20.

The white blood cell enzyme assay requires the separation of the white blood cells from whole blood; disruption of the cells by freezing and thawing or sonification; acrylamide gel electrophoresis for separation of hexosaminidase A and B bands; and determination of total A and B fluorescence released in comparison with fluorescence of the non-inactivated hexosaminidase B band and the extinguished heat or pH inactivated hexosaminidase A band.[3] The actual determination is measured as umbelliferone released per ml per hour with percentage calculations as for the serum, with total A and B hexosaminidase minus hexosaminidase B resulting in the hexosaminidase A measurement. The normal percentage range for hexosaminidase A in leucocytes is 62 to 80, the carrier range is 42 to 61, and homozygous Tay-Sachs disease is two to 25.

Direct amniotic fluid determination requires sephadex solution treatment and the determination of the percentage of hexosaminidase A is carried out as with serum test. However, it is *always* necessary to culture the *cells* that are in

the amniotic fluid for approximately four weeks and then proceed with the enzyme analysis from those cultured *cells* in the fashion described above for white blood cell enzyme assay. The direct amniotic fluid hexosaminidase A determination by itself does not offer sufficient discrimination of values for the complete safety of the fetus. The amniotic fluid percentage range of normal hexosaminidase A is six to 35; carrier fetuses are in the same range; afflicted Tay Sachs fetuses are usually zero but can range from two to 19. The cultured amniotic fluid cells result in a percentage of hexosaminidase A in the normal of 30 to 66; carrier fetus hexosaminidase A with 20 to 35; and afflicted Tay-Sachs fetuses with zero to five.

In accordance with laboratory regionalization efforts, the tests were performed at the Kingsbrook Jewish Medical Center, Brooklyn, New York.

Results

Approximately six percent (110) of the individuals tested were classified as "inconclusives;" i.e., those individuals who required repeat testing with the more specific WBC enzyme test. This was necessary since the serum test was designed to detect all carriers and an equal number of false positives.

All inconclusives were counseled and the majority of these (81) returned to the Division of Human Genetics Laboratory for retesting by the more specific white blood cell enzyme assay. As expected, slightly over one-half (55) of these individuals were true carriers and the remainder were completely normal by the white blood cell enzyme test. As indicated in the table, 29 individuals did not return for retest by white blood cell enzyme assay. Thus, the detected carrier incidence was one in 35; the presumptive carrier incidence is one in 26. None of the carriers was married to the other.

Discussion

As previously stated, voluntary mass screening for Tay-Sachs gene carriers meets all the criteria for a good genetic screening program and justifies the efforts which have been expended in providing this service.

As a forerunner to any screening program, a thorough knowledge of the natural course of the disease is necessary. This knowledge has been acquired for Tay-Sachs disease and has established that it is a progressive, degenerative central nervous system disease leading to death prior to five years of age.

Another necessary criterion is that the target population to be screened should have a demonstrated increased frequency for the gene over the frequency in other populations. The Tay-Sachs gene is found predominantly in the Ashkenazi Jewish population which originated in eastern Europe. The carrier state for the autosomal recessive gene in descendants of that population is approximately 1 in 30. If *two* carriers produce offspring, there is a 1 in 4 (25 percent) chance of having a baby of either sex who is afflicted with Tay-Sachs *disease*, a 2 in 4 (50 percent) chance for normal carrier children like the parents, and a 1 in 4 (25 percent) chance for a normal non-carrier child. If only one parent is a carrier, none of the children will have the disease, and there is a 50 percent chance for carrier offspring similar to that parent.

Results of Tay-Sachs Screening

Area	*Springfield*	*Highland Park*	*Edison*	*Caldwell*	*Englewood*	*Totals*
Number screened	534	399	205	230	437	1805
Initial normals — serum test	504	377	188	217	409	1695
Inconclusives counseled	30	22	17	13	28	110
Retested — WBC enzyme test	26	14	10	10	21	81
Non-returnees for retest	4	8	7	3	7	29
Definite carriers	16	10	5	5	19	55
Total normals	514	381	193	222	411	1721
Carrier incidence	1:33	1:38	1:40	1:45	1:21	1:35
Presumptive carrier incidence	1:29	1:29	1:22	1:33	1:19	1:26
Number of carriers married to each other	0	0	0	0	0	0

As the third parameter, the age group to be screened in a target population is determined by the availability of treatment for the condition. If therapy is available for a specific genetic disease, the newborn population should be screened for the condition. If treatment is not available, the age group to be studied should be the procreative years beginning at 16 years of age. There is no treatment available for Tay-Sachs disease and there is not likely to be effective therapy in the future. The afflicted fetus has already started to accumulate the gangliosides in the central nervous system by the 12th to 22nd week of gestation. Thus, the target population for Tay-Sachs screening must be persons of procreative age in an effort to determine if the carrier state exists prior to pregnancies.

Naturally, the screening test should be simple, accurate, sensitive, and specific with regard to separation of normal carriers from afflicted individuals. Such conditions exist for Tay-Sach gene detection by means of a serum test for hexosaminidase A[2] except during pregnancy, which alters the enzyme value. In this emergency situation, a serum test and a more specific but difficult white blood cell enzyme assay[3] is done on the husband, if the wife is less than four months pregnant. If he is not a carrier, there is no cause for concern. If he is a carrier, amniotic fluid studies can be done.[3] The regular serum test sensitivity is set at a level which will not miss any carriers, but will detect an equal number of normals as false positives. These "inconclusives" are counseled and retested with the more specific WBC enzyme assay.

The single most important criterion for mass screening for the carrier state for an untreatable genetic disease is the requirement for an accurate, feasible intrauterine diagnostic test which is capable of differentiating between normal carriers similar to the parents and afflicted diseased fetuses. Thus, therapeutic abortion can be offered on a selective basis for afflicted fetuses only. This situation does exist in Tay-Sachs for evaluation of the fetus, when both parents are carriers, by means of amniocentesis and amniotic fluid study[3] begun at the 15th to 16th week of gestation.

The amniotic fluid is tested directly for levels of hexosaminidase A but, more importantly, the *cells* from the amniotic fluid are separated and cultured for a period of four weeks. The direct fluid analysis is *not* completely reliable, but the enzyme assays performed on the cultured cells does yield virtually 100 percent reliability.

Lastly, after mass screening, follow-up should be available to those individuals who have been detected as carriers, so that reassurance and explanations can be offered to them. This situation does exist for mass Tay-Sachs screening, with the follow-up available through the Division of Human Genetics of the Department of Pediatrics at the New Jersey Medical School in Newark.

Therefore, voluntary mass screening for the Tay-Sachs gene satisfies all the requirements, and such programs were carried out in five New Jersey communities. The screenings have involved 1,805 individuals, as indicated in the table. Excluded from that figure are the 261 persons who came to the Genetics Unit laboratory for individual testing.

Since the initial serum test which was performed is designed to detect all carriers and an equal number of normals who are false positives, the 110 initially positive individuals were labelled "inconclusives." The "inconclusives" were counseled in order to allay anxieties, and the majority (81) of these individuals returned for retesting by the more accurate white blood cell enzyme assay, resulting in 55 definite assignments as carriers.

The detected incidence of Tay-Sachs gene carriers in the five communities studied ranged between 1 to 21 and 1 to 45. However, if it is assumed that half of the individuals who did not return for the white blood cell test were carriers also, the presumptive carrier incidence was somewhat higher and ranged between 1 to 19 and 1 to 33. These latter figures are very similar to those obtained by Kaback and O'Brien[1] in their screening program in the Washington-Baltimore area.

Fortunately, none of the carriers had been married to another and, therefore, no couple was at risk for having children with Tay-Sachs disease. If married carriers had been detected, they would have been offered amniotic fluid studies at

the 15th to 16th week of gestation during any subsequent pregnancies. Such studies would definitely discriminate between a diseased fetus and a carrier fetus and thus allow for voluntary therapeutic abortion of the diseased fetus if the family so decided.

The 55 individuals who were detected as definite carriers of the Tay-Sachs gene were counseled further by the Genetics Unit and assisted to an even more complete understanding of the situation. In addition, they were encouraged to inform their siblings and other blood relatives who might be at risk for being a carrier, so that testing could be performed on those individuals regardless of geographic location. There is a listing of Tay-Sachs testing centers throughout the United States which provides this information for the family.

It is obvious that the success of any screening program is dependent upon the large efforts of many volunteers who can assist with publicity, public education, and education of physicians.

Mass screening for the Tay-Sachs gene serves as a model for any future genetic screening programs.

References

1. Kaback MM and O'Brien JS: Tay-Sachs: Prototype for prevention of genetic disease. *Hosp Pract* 8:107, 1973.

2. Saifer A and Rosenthal AL: Serum hexosaminidase A analysis with the pH inactivation method for the detection of Tay-Sachs disease heterozygotes and homozygotes. *Clin Chim Acta* 43:417, 1973.

3. Friedland J, Schneck L, *et al:* Leucocyte and amniotic fluid and cell hexosaminidase A analysis by acrylimide gel electrophoresis for the detection of Tay-Sachs disease heterozygotes and homozygotes. *Clin Chim Acta* 28:397, 1970.

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This is the first reported case of a normal infant born to a white galactosemic woman. Although the infant was postmature and suffered effects of a long, difficult delivery, the follow-up studies show normal physical and psychomotor development. As expected, the infant is heterozygotic for the galactosemia gene, as indicated by Galactose 1-P uridyl transferase studies. Possible explanations for the normal final outcome are suggested.

Normal Infant Birth in White Galactosemic Woman

Sandra Samuels, M.D., Shyan C. Sun, M.D., and Suwanee Verasestakul, M.D./Newark*

Galactosemia due to deficiency of galactose 1-phosphate uridyl transferase activity is a rare but treatable inherited disorder of carbohydrate metabolism.

Generally, its manifestations in early infancy include hepatomegaly, jaundice, failure to thrive, mental retardation, cataracts, and death in untreated patients. Chemically, findings of disturbed hepatic function, renal dysfunction with renal tubular acidosis, and hypoglycemia may be present.[1] The symptoms result from toxic accumulations in blood and tissues of Galactose 1-phosphate or its metabolite, galactitol, due to absence of an enzyme Galactose 1-phosphate uridyl transferase.[2, 3]

The condition is inherited as an autosomal recessive, with the incidence of the disease varying from 1/18,000 to 1/70,000 in different populations.[4, 5]

Treatment by a strict lactose-free diet may be lifesaving, and is associated with partial or total regression of the symptoms. Life-long treatment may give best results.[6] Mortality rate is 20 percent, usually in infancy.[7]

Because of prompt recognition and treatment of galactosemic infants in the past generation, there is presently a small pool of female patients who have reached maturity and are producing offspring. This is the first reported case of a normal baby born to a white galactosemic mother. Two normal infants born to black mothers have been previously described.[8, 9]

Case Report

An 8 pound, 6 ounce, white, male infant was born to a G 1, P O galactosemic mother after 43 weeks gestation. The pregnancy was uneventful but delivery required caesarean section after 16 hours of labor, complicated by deep transverse arrest. The mother received an oxytocin drip, and a total of 350 mg. of meperidine during this period. Apgar score was three at one minute and ten after five minutes. Strong stimulation and oxygen mask were required to initiate respirations, which were delayed two to three minutes. The infant was meconium-stained at birth. He was treated immediately with penicillin and kanamycin. At six hours he developed periods of apnea and seizures and was transferred to the Neonatal Intensive Care Unit.

Admission examination revealed a post-term infant in the 75th percentile for weight, height, and head size. He appeared normal except during short, intermittent periods, when he became apneic, cyanotic, and had tonic seizures of all extremities. His heart rate was 140, with normal heart sounds; respiratory rate was 60; and breath sounds were normal. Abdomen and extremities were normal.

Studies revealed normal CBC, urinalysis, spinal tap, blood sugar, calcium, and blood cultures. Chest x-ray showed anterior loculated pneumomediastinum plus areas of focal atelectasis and moderate air trapping bilaterally. Blood gases showed mild metabolic acidosis; pO_2 was 86 mmHg in capillary blood. The infant received 10 percent calcium gluconate, sodium bicarbonate, and 10 percent glucose intravenously; magnesium sulfate and pyridoxine hydrochloride intramuscularly and 100 percent oxygen by hood.

In spite of this therapy, the infant continued to have seizures; Valium® and phenobarbital were added on the second day and no further seizures were noted after the third day. EEG, skull x-rays, and repeat chest x-ray were normal.

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Urine and blood studies for metabolic screening were normal except Gal-1-P uridyl transferase which was 9.7 units/G Hb (normal 14-25 U/G Hb).[10] The infant's discharge treatment included phenobarbital and Enfamil.® Follow-up visits at three months, eight months, and thirteen months of age revealed a robust, healthy, alert boy in the 50th percentile for height, weight, and head circumference. There were no physical stigmata of galactosemia and his psychomotor development was appropriate for his age. EEGs were normal on these visits.

Parent's History

The mother was diagnosed as galactosemic at six months of age because of hepatomegaly, vomiting, and failure to thrive. She has been on a lactose-free diet since then and free of symptoms. Her genito-urinary history was noteworthy — she had irregular menses since puberty at age 16 and amenorrhea for one year prior to marriage. Her uterus was described as infantile, with micro-external os. She was treated empirically with thyroid pills, for six months, and then with contraceptive pills for eight months; the infant was conceived one month later. Blood Gal-1-P uridyl transferase of the mother was zero to 0.05 units several times in the past and a recent repeat study showed 1.5 U/G Hb. Study for the Duarte variant was not made. The father has mild cerebral palsy related to birth trauma. His Gal-1-P uridyl transferase is 22.3 U/G Hb which is normal.

Discussion

Although this case was complicated by neonatal seizures, the infant is presently normal. The initial seizures might have been related to perinatal complications which include heavy maternal sedation, prolonged labor, oxytocin induction, cephalopelvic disproportion, meconium-aspiration syndrome and neonatal hypoglycemia. These all may contribute to cerebral anoxia and are associated with post-maturity. After 24 hours, when we evaluated and treated the infant, metabolic and infectious causes were eliminated; cerebral hypoxia and edema best explained the continued seizures. We did not consider these seizures to be related to galactosemia in any way. As is known, when seizures are not accompanied by other neurological problems and the EEG remains normal, the prognosis for total recovery is very good.[11] At three, eight and thirteen months of age, the infant appeared normal in all respects.

Galactosemia is inherited as an autosomal recessive condition. Our patient is heterozygotic for galactosemia: his Gal-1-P uridyl transferase value of 9.4 U/G Hb, being midway between that of the mother, who is homozygotic for the galactosemia gene, and the father, who is a non-carrier for galactosemia.

Our final diagnosis, therefore, was post-term infant, appropriate for gestational age, with perinatal asphyxia, meconium aspiration syndrome, pneumomediastinum, neonatal seizures due to cerebral hypoxia, and heterozygotic for galactosemia.

The interesting question is whether a mother with galactosemia will, during pregnancy, adversely affect her offspring, as happens in Phenylketonuria (PKU).[12] Galactose toxicity has been demonstrated in various tissues of experimental animals.[3] In the two cases previously reported, normal healthy offspring were born. Since both mothers were black, it was thought that intestinal lactase deficiency might have been a protective factor,[9] or perhaps there might be racial variants of congenital galactosemia.[13] In this white family, the same mechanism cannot be postulated. Rather, the avoidance of lactose-containing food by the mother, minimal toxic effect on the fetus by Gal-1-P, or the infant's own ability to deal with a galactose load might be more significant.

In summary, this is a case report of a normal infant born to a white galactosemic mother, after a complicated perinatal course.

References

1. Stanbury J, Wyngaarden J, and Fredrickson D: *The Metabolic Basis of Inherited Disease.* New York, McGraw-Hill, 1972. Pp 178–179.

2. Op cit., Pp 187–189.

3. Sidbury J Jr: Investigations on the pathogenesis of galactosemia. In: *Galactosemia,* edited by D. Hsia, Springfield, Illinois, Charles C Thomas, 1969. Pp 13–29.

4. Stanbury J, Wyngaarden J, and Fredrickson D: *The Metabolic Basis of Inherited Disease.* New York, McGraw-Hill, 1972. P 186.

5. Brandt N J: Genetics of hereditary galactosemia. In: *Galactosemia,* edited by D. Hsia. Springfield, Illinois, Charles C Thomas, 1969. Pp 140–149.

6. Donnell G, Koch R, and Bergren W: Observations on results of management of galactosemic patients. In: *Galactosemia*, edited by D. Hsia. Springfield, Illinois, Charles C Thomas, 1969. Pp 247–268.

7. Cornblath: Comments. In: *Galactosemia*, edited by D. Hsia. Springfield, Illinois, Charles C Thomas, 1969. Pp 269–270.

8. Roe T, Hallatt J, Donnell G, and Ng W: Childbearing by the galactosemic woman. *J Pediatr* 78:1029, 1971.

9. Tedesco T, Morrow G, and Mellman W: Normal pregnancy and childbirth in a galactosemic woman. *J Pediatr* 81:1158, 1972.

10. Hsia D Y and Inouye T: *Inborn Errors of Metabolism*, Part 2. Pp. 114–6. Chicago, Year Book Medical Publishers, 1966. Pp 114–116.

11. Rose A and Lombroso C: Neonatal seizure states. *Ped* 45:404, 1970.

12. Yu J and O'Halloran M: Children of mothers with phenylketonuria. *Lancet* 1: 210, 1970.

13. Segal S: The Negro variant of congenital galactosemia. In: *Galactosemia*, edited by D. Hsia. Springfield, Illinois, Charles C Thomas, 1969. Pp 176–185.

15 South Ninth Street, Newark

Who Are the Elderly?*

Physicians, sociologists, and other specialists have yet to reach a consensus on what constitutes aging and who should be included among the elderly.

The Commission on Population Growth and the American Future says: "How we define 'old' and 'young' is always an arbitrary matter, determined in large part by custom. Only at the lower and upper age ranges are the functions which people are able to perform clearly related to biological age. For example, it could be argued that a more appropriate delineation of the working age population would be 21 to 70, rather than 18 to 64 years. This would permit a longer period of schooling and training appropriate to the economy's needs. Also, in a population with higher longevity, health and vitality can be retained until older ages. Sweden, with an older age distribution than ours, places retirement at 70 — rather than 65; India, with a much younger age structure, places it at 55."

Biologically, aging begins at birth and continues until death, although not until about the fourth decade of an individual's life does it become obvious — and this, in part, is due to stereotyped ideas about aging. The major physiological changes include a decline in body efficiency and, later, changes in the body structure, an arrest of some growth processes, and a reversal of size.

Aging, of course, is more than a physiological process affected by heredity and modified by environment. It is a social one, as well, and involves changing relationships between the older person and other people, including such subjective factors as whether the individual views himself or herself as elderly or others view the individual so.

In the United States, being "old" or "elderly" is usually considered as having reached the age of 65 years. This view became "officialized" when the Federal social security program was established in 1935. To facilitate the program's implementation, the Social Security Administration had to establish some simple method of assessing eligibility. It selected chronological age to avoid the time-consuming and expensive procedure of evaluating an individual's financial situation and physical and psychological health. The age the Administration initially chose was 65 years.

Recently, however, some official definitions of the elderly have been changing. In 1956 the Social Security Administration chose age 62 for optional eligibility for reduced benefits for retirement of women, and in 1961 offered the same participation to men. Then, with the signing into law of the Older Americans Comprehensive Services Amendment of 1973 to the Social Security Act, the optional retirement age was reduced to age 60.

*Population Bulletin. "The Elderly in America." 30:3–4, Washington, D.C.

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Results of levodopa treatment in 266 patients with Parkinsonism, followed six months to more than five years, showed significant improvement, which was largely maintained in 90 percent of cases. Toxic effects from levodopa administered as the main therapeutic agent were reduced to a low level by slow initial build-up of the drug. The addition of carbidopa in the form of Sinemet® enhanced the beneficial results while reducing the peripheral toxic effects. In a majority of patients levodopa, especially when combined with carbidopa, arrests the otherwise downhill clinical progression of Parkinson's disease.

Results of Present-Day Therapy of Parkinson's Disease

Stanley Stellar, M.D. and Yashwant Bhandari, M.D./Livingston*

The treatment of Parkinson's disease entered a new phase in 1967 with reports by Cotzias, *et al.*[1, 2] that successful clinical use of levodopa depended upon large dosage persistently administered over a long period of time. This carefully controlled, two-year trial in 28 patients revolutionized the prognosis for the unfortunate sufferers from this disease. Programs of treatment based mainly on levodopa in many centers throughout the world quickly confirmed these results. Many ramifications of the levodopa treatment and many new problems arose. Of singular importance has been the long-term outcome for the individual patient.

This report is based upon observation of a large number of carefully treated patients, some for more than five years. In our experience, toxic effects were reduced even more substantially than hitherto by careful titration of the drug. This paper is a continuation of our preliminary report[3] on 91 patients, who were treated for up to four months or longer.

Citation of the Literature

Most published reports agree that significant therapeutic benefit occurs in 50 to 75 percent of patients.[4-7] Ninety-two percent of a collected series of 1609 patients suffered from toxic effects at some time during treatment, but increased tolerance to levodopa occurs with longer duration of administration. Autopsy studies[9] have not revealed any important anatomical changes due to the medication. A number of observers[10, 11] have thought their data insufficient to decide whether the disease is arrested by levodopa. Psychological studies, treatment failures, effects of dietary intake of protein and pyridoxine, and the simultaneous use of the peripheral dopa-decarboxylase inhibitor, L-alpha methyldopa hydrazine, carbidopa, are discussed in the current literature.[12-17, 19]

The majority of recent reports on the levodopa treatment of Parkinsonism agree that short and long-term benefits are considerable and that progress of the disease may be slowed. Toxic effects are frequent, dose-related, and largely reversible. Treatment must be sustained for the lifetime of the patient.

Methods

An open study of 266 patients was begun in 1968 by the senior author, with treatment periods from six months to more than five years. The 151 male and 115 female patients, who ranged in age from 44 to 85 years, were mostly in the seventh and eighth decades of life. The disease was present from one to 35 years before levodopa treatment was begun. Assessment of results was based on careful examination, grading of individual symptoms, and overall

*This study is from the St. Barnabas Medical Center, Livingston, New Jersey, where Dr. Stellar is Attending Neurosurgeon and Director of the Neural Sciences Research Institute, and Dr. Bhandari is Assistant Attending Neurosurgeon. Dr. Stellar is Clinical Associate Professor of Neurosurgery and Dr. Bhandari is Clinical Instructor of Neurosurgery, CMDNJ, New Jersey Medical College, Newark.

condition according to standard methods followed by experienced clinicians.[1, 2, 6-11]

With experience, the dose of the drug has gradually been reduced to the present regimen, which starts with 250mg by mouth twice a day and increases by the same amount every three to four days until a daily dosage of two grams is reached. If more levodopa is needed, the same dosage increase is made every week or two until therapeutic or toxic levels are attained. We now begin nearly all cases on Sinemet,® which combines carbidopa, 10mg or 25mg, with levodopa, 100mg or 250mg, respectively, in a single tablet. When changing a patient over from levodopa alone to Sinemet,® we generally reduced the daily intake of levodopa to 20 to 25 percent. If a patient had been receiving one gram of levodopa four times a day he was then placed on the combination Sinemet® tablet, each of which contains 25mg of carbidopa and 250mg of levodopa, four times a day. In patients who had not currently been receiving levodopa, Sinemet® was started gradually with the lower dose tablet when the symptoms were mild and the larger tablet when they were severe. One-half tablet was ordinarily used two to four times per day depending upon the need; the dosage was next titrated upward depending upon the patient's requirements, his therapeutic result, and toxic effects over a span of four to eight weeks' adjustment period. Ninety-three of our 266 patients later received carbidopa with increased benefit and virtually all of our other patients have since been placed on Sinemet®. The results of these observations, which extend nearly four years, will be reported in a subsequent publication.

Therapeutic Effects

The overall results with levodopa have been very satisfactory. Ninety percent (239 of our patients) showed significant, long-term improvement, while the rest showed a poor response (Table 1). Levodopa was nearly always combined with other anti-Parkinsonian drugs (amantadine, Cogentin®, Artane®) during the early stages in an effort to obtain better clinical results. Physiotherapy was frequently employed. Fluctuations and partial regressions in clinical well-being were found in about one-third of patients.

Table I

Clinical Results
Relation Between Duration of L-Dopa Therapy and Outcome

Duration of Treatment (in years)	Number of Cases	Improvement*	Poor Response
½ to 1	53	39	14
1 to 2	76	70	6
2 to 3	61	57	4
3 to 4	64	61	3
4 to 5	12	12	0
Total	266	239	27
Percentage	100	90	10

*Subjective and objective betterment of substantial degree.

Table 2 shows the effect of levodopa on various symptoms, not all of which were present simultaneously in each of the 266 individuals. Tremor was often difficult to relieve, especially when it was of great magnitude. Patients who were far advanced in their first symptomatology or who were largely disabled and dependent upon others for their daily care responded least well to medical management. However, such in-

Table 2

Effect of L-Dopa on Symptoms in 266 Patients

Symptoms	Number of Cases	Relieved (percent)	Improved (percent)	Improvement Followed by Partial Regression (percent)	Unchanged (percent)
Tremors	229	20	38	13	29
Rigidity	247	17	54	6	23
Bradykinesia	260	5	40	14	41
Facial Masking	262	7	26	22	45
Impaired Balance	228	13	44	10	33
Impaired Gait	229	14	35	11	40
Alternating Movements	255	9	43	10	38
Posture	234	21	18	9	52
Arm Swing	262	10	40	8	42
Voice and Speech	163	17	12	11	60

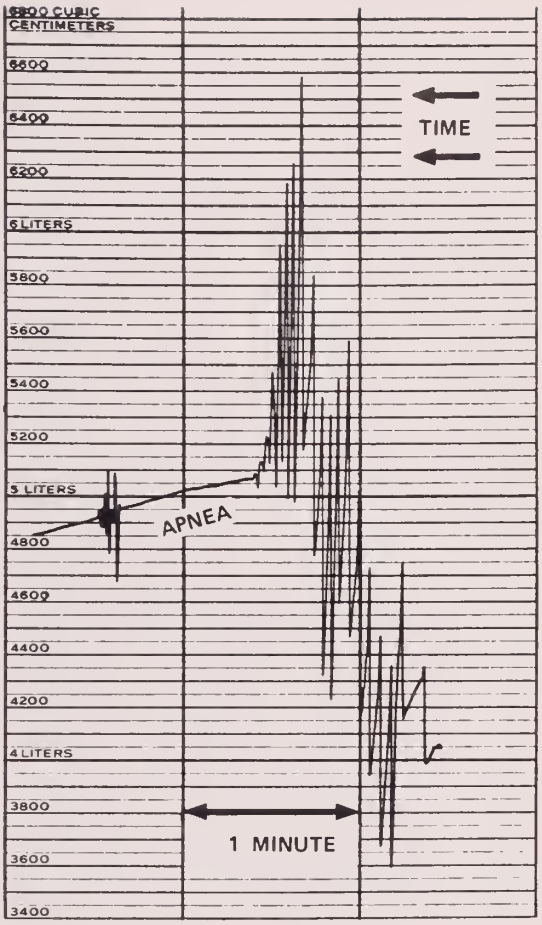
dividuals could often be maintained without further deterioration.

Toxic Effects

The toxic effects of levodopa (Table 3) included the following:

(1) *Anorexia, nausea, and vomiting* are mediated peripherally, probably by direct action on the gastrointestinal system. They can be largely controlled by very gradual increments when levodopa is used alone; Sinemet® virtually eliminates these symptoms.

(2) *Abnormal movements (dyskinesia)* which are the result of the action of dopamine on brain neurones, are dose-related. Unfortunately, these manifestations very often limit the amount of levodopa which the patient can tolerate. It is frequently necessary to accept a compromise between therapeutic efficacy and toxicity. At the same time it may be difficult to balance the patient satisfactorily between these two states. Dyskinesia may at times involve the muscles of respiration so markedly that effective breathing becomes impossible (See Figure). This necessitates prompt recognition and rapid management of the condition by discontinuation of levodopa and administration of pyridoxine as an antidote. Deanol® has been disappointing in the management of abnormal movements despite one report of effectiveness.[18]



Spirometer graph of patient with respiratory dyskinesia showing irregularity, raising of respiratory mid-position, and apnea for nearly one minute.

Table 3

Toxic Side-Effects of L-Dopa in 266 Cases

	Side Effects	Number of Cases	Percentage of Cases	Comments
Nausea	Initial	87	33	
Vomiting	Initial	12	5	Incidence is low because dosage was reduced when nausea occurred
Involuntary movements (Oral-facial dyskinesia and/or choreiform limb and body movements)	Initial	15	6	Dose related
	During Rx	81	30	Diminished on reducing dosage of L-Dopa
	Present level	29	11	
Breathing dyskinesia		5	2	Dose related
Paranoid ideation, agitation and confusion		47	18	
Parkinsonian crisis		15	6	
Tachycardia		5	2	Improved on temporary omission of drug
Auricular Fibrillation		5	2	
Dizziness or syncope		40	15	Possibly symptomatic of hypotension

(3) *Confusional states,* which are dose-related and centrally mediated, consist of paranoid reaction, confusion, and visual hallucinations. They disappear on reducing levodopa dosage or on discontinuing the drug. Often, the medication can be re-prescribed, sometimes at a lower dosage, without recurrence of the symptoms. In other patients levodopa, with or without carbidopa, may become impossible to use.

Less frequent side-effects include *hypotension,* frequently postural, often reported as dizziness or light-headedness. Supportive leg and body stockings and Florinef® have been useful in these individuals. *Cardiac dysrhythmia,* such as atrial fibrillation, may occur on levodopa alone; it is prevented in some patients by using Sinemet.® *Parkinsonian crisis,* a marked worsening of symptoms even while the patient receives the same, previously effective dose of levodopa, will sometimes occur with an attack of influenza, upper respiratory disease, or without any known precipitant. Intensive supportive measures are necessary if the life of the patient is to be saved. At times, an apparently moribund patient can be restored to his pre-crisis state even when levodopa is stopped and later restarted. Gout occurs rarely[20] although serum uric acid is often elevated.

Discussion

In this series of 266 patients, treated since 1968 with levodopa or later with Sinemet®, clinical arrest of disease has clearly taken place in a large percentage. This is shown by carefully grading and documenting the symptomatology in each patient by the authors. Some did not maintain all of their initial improvement and others fluctuated on a daily or longer time scale. Many never regressed at all and none in the "improved group" ever became as bad as he/she had been before taking levodopa. In more than two-thirds of our patients, the steady deterioration which is characteristic of patients taking the older anti-Parkinson drugs before levodopa became available, did not occur. Following an appreciable number of such individuals into the sixth year of treatment with levodopa, and later with Sinemet®, without any progression of disease, gives convincing evidence that clinical arrest of Parkinsonism has taken place.

Toxic effects from levodopa are usually dose-related and fully reversible. Those which result from peripheral action on organs outside of the nervous system are largely prevented by Sinemet®, although centrally mediated toxicity may be made worse when carbidopa is used with levodopa. Carbidopa inhibits the formation of dopamine, the essential neurotransmitter, from levodopa in peripheral tissues. This reduces the peripherally mediated toxic effects on the gastrointestinal tract and cardiovascular system. Since carbidopa does not cross the blood-brain barrier, it does not inhibit the action of dopamine on the brain. More levodopa is thus available to enter the brain, which enhances the desired therapeutic result. Unfortunately, it also increases toxic symptoms which are mediated through the brain, such as abnormal movements and confusional states. This makes regulation of dosage somewhat more complicated, so these manifestations can be the limiting factor militating against therapeutic efficacy. Continued attention to the nuances of drug treatment will overcome most difficulties arising from toxicity. There has been no specific ill-effect on urinary bladder function and glaucoma has not developed in any of our patients. Patients with glaucoma have been controlled quite as easily with pilocarpine and related drugs while continuing levodopa. All of the deaths in our series were due to causes normally operating in an elderly population, sometimes resulting from complications to the primary Parkinson's disease and sometimes due to coincidental pathological processes. Clinical and autopsy examinations did not show any relationship between levodopa and death in the 27 patients who died during the study.

Incomplete relief of Parkinsonian symptoms is troublesome to many in the otherwise improved group and more particularly to the elderly, far-advanced cases who respond poorly to all therapeutic measures. These individuals probably do not have a sufficient number of functioning neurones in the substantia nigra and basal ganglia to respond to the neurotransmitter, dopamine, even when given amounts adequate for normal or less-damaged tissue. For some patients, stereotaxic surgical control of unwanted and disabling tremor, rigidity, and impaired alternating movements in

the limbs is available with cryogenic or radiofrequency thalamectomy. Individuals resistant to medical treatment and disabled by tremor, rigidity, and poor movement in the limbs will frequently derive great benefit from therapeutic lesions created in the ventro-lateral and postero-ventro-lateral nuclei of the thalamus opposite to the side of the symptoms. The lesions interrupt circuits which are responsible for such symptoms and immediate and gratifying relief can be obtained in some 85 percent of patients. The risk is one to two percent for both mortality and lasting morbidity.[21-23] Thalamic hemorrhage due to the operative procedure is the most important cause of post-operative hemiparesis or hemiplegia, but more than half of such patients will still make a good recovery. In our own series of patients with Parkinsonism treated with levodopa and Sinemet®, stereotaxic cryothalamectomy was necessary in only two to three percent.

References

1. Cotzias GC, Van Woert MH, Schiffer LM: Aromatic amino acids and modification of Parkinsonism. *N Engl J Med* 276:374–379, 1967.

2. Cotzias GC, Papavasiliou PS, Gellene R: Modification of Parkinsonism — chronic treatment with L-Dopa. *N Engl J Med* 280:337–345, 1969.

3. Stellar S, Mandell S, Waltz JM, Cooper IS: L-Dopa in the treatment of Parkinsonism. *J Neurosurg* 32:275–280, 1970.

4. Langrall HM, Joseph C: Status of the clinical evaluation of levodopa in the treatment of Parkinson's disease and syndrome. *Clin Pharmacol and Therapeu* 12:323–331, 1970.

5. Langrall HM, Joseph C: Evaluation of safety and efficacy of levodopa in Parkinson's disease and syndrome. *Neurol Suppl* 22:3–16, 1972.

6. Cotzias GC: Levodopa in the treatment of Parkinsonism. *JAMA* 218:1903–1908, 1971.

7. Markham CH: Thirty months' trial of levodopa in Parkinson's disease. *Neurol Suppl* 22:17–21, 1972.

8. Barbeau A: Long-term appraisal of levodopa therapy. *Neurol Suppl* 22:22–24, 1972.

9. Yahr MD, Wolf A, Joao-Lobo A, Koho M, Duffy P: Autopsy findings in Parkinsonism following treatment with levodopa. *Neurol Suppl* 22:56–71, 1972.

10. Stern PH, McDowell F, Miller JM: Levodopa therapy effects on natural history of Parkinsonism. *Arch Neurol* 27:481–485, 1972.

11. Lee JE, Sweet RD, McDowell FH: Treatment of Parkinsonism with levodopa. *Ann Int Med* 75:703–708, 1971.

12. Riklan M: Levodopa and behavior. *Neurol Suppl* 22:43–55, 1972.

13. Mones RJ: Absence of response to levodopa in Parkinson's disease. *JAMA* 217:1245, 1971.

14. Gillespie NG, Cotzias GC, Bell MA: Diets affecting treatment of Parkinsonism with levodopa. *J Am Dietetic Assn* 62:525–528, 1973.

15. Cotzias GC, Papavasiliou PS: Blocking the negative effects of pyridoxine on patients receiving levodopa. *JAMA* 215:1504–1505, 1971.

16. Mars H, Barrera EK, Bennett S: Levodopa and pyridoxine. *JAMA* 219:1964, 1972.

17. Yahr MD, Duvoisin RC: Pyridoxine, levodopa and L-alpha methyldopa hydrazine regimen in Parkinsonism. *JAMA* 216:2141, 1971.

18. Miller E: Deanol in the treatment of levodopa-induced dyskinesias. *Neurol* 24:116–119, 1974.

19. Mars H: Levodopa, carbidopa, and pyridoxine in Parkinson's disease. *Arch Neurol* 30:444–447, 1974.

20. Honda H, Gindin RA: Gout while receiving levodopa for Parkinsonism. *JAMA* 219:55–57, 1972.

21. Cooper IS: *Involuntary Movement Disorders.* New York, Harper and Row, 1969. p. 410.

22. Waltz JM, Riklan M, Stellar S, Cooper IS: Cryothalamectomy for Parkinson's disease: a statistical analysis. *Neurol* 16:994–1003, 1966.

23. Stellar S, Cooper IS: Mortality and morbidity in cryothalamectomy for Parkinsonism: a statistical study of 2868 consecutive cases. *J Neurosurg* 28:459–467, 1968.

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210th Annual Meeting — June 4-8, 1976

Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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Freud's view of personality development was colored by the biases of a male-dominated society. Biological evidence points away from these commonly accepted concepts of male superiority. If we are to achieve true equality between the sexes the hostility that has led to the degradation of women and the devaluation of their roles must be understood and much work will be required to defuse the hostility.

A Gynecocentric View of Personality Development

Morton Friedman, M.D./Millburn*

Freud, as a male and in a culture marked by the prevalence of male superiority, set out to explain the phenomena he observed as if these phenomena were inherent in the human condition. It was, therefore, natural for him to develop a phallocentric hypothesis, and much of what he saw as masculine and feminine was seen as the result of having or not having a penis. Women whom he saw as having what he identified as masculine strivings he classified as neurotic and the strivings as due to penis envy, which he was convinced grew out of a feeling of biological lack beginning with the little girl's discovery in early childhood that she lacked this central organ possessed by the boy.

To the little boy his penis may be very important, and as he is incapable of imagining that one could feel complete without it, he assumes that little girls must feel deprived and inferior.[1] It may be true that the girl's lack of a penis may activate latent anxiety about the possibility of loss of his own organ, but it does not necessarily follow that the girl feels any lack.

Stoller[2] points out that girls have a sense of femaleness very early and that even Freud realized that the development of the concept of femininity or masculinity did not wait until the phallic phase. Freud noted that the little girl accepted her "deficiency" with hesitation and reluctance. Obviously, therefore, there must have been a time before she felt deficient, and in which she was happy in her femininity. This was a time before she came to realize the position of privilege and alleged superiority that some people possessed and had simply by having the badge of difference, the penis.

Freud believed his view of female sexual development could explain what he interpreted as female gender traits, such as insatiable envy, feelings of inferiority, vanity, and passivity; while the traits of sexual aggressiveness and assertiveness he reserved for the male. It did not seem to occur to him that what he interpreted as characterological traits and behavioral characteristics of the female were the result of a multitude of demands and controls imposed upon her by the particular culture in which she lived. Simply seeing personality traits, he accepted them as inherent and offered explanation. It reminds me of Voltaire's description of the inherent characteristics of Jews after seeing them in the dingy Frankfurt ghetto. He described them as inherently thin, rickety, hunched over, and passive.

As we have come to understand more of the influences of culture and economics, as well as embryology and anthropology, other ideas and concerns involving human development have been identified. It has been demonstrated by biologists that, while genetic sex is established at fertilization, the early embryo is female.[3] The effect of the sex genes is not felt until the fifth to sixth week of fetal life at which time, if the genetic sex is male, the primordial germ cells stimulate the production of a testicular inductor substance which stimulates the fetal androgens, supressing the growth of the ovaries. If the genetic sex is female, germ cells stimulate the production of follicles and estrogen. If one removes the gonads before the seventh week, and estrogens are not produced, a fetus with nor-

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mal female anatomy will develop anyhow. Thus, only the male embryo undergoes differentiation necessary for masculinization while female development is autonomous. One notes then that rather than the clitoris being a truncated penis, it would be more correct to say that the penis is an exaggerated clitoris and that the scrotum is derived from the labia.[4] If one could assume a concept of an original libido, it would clearly be feminine.

Sherfey,[3] elaborating on the hypothesis of the primal sexuality of women, emphasizes the vastly superior sexual capacity of the female. Under optimal arousal conditions, because arousal is associated with a high degree of pelvic congestion and each orgasm tends to increase pelvic vasocongestion, the more orgasms achieved, the more can be achieved. Orgasmic experiences may continue until exhaustion intervenes. The value for breeding and the preservation of the species is obvious. However, it would preclude monogamy for the woman. Dr. Sherfey believes that pre-civilized woman enjoyed full sexual freedom and was often incapable of controlling her sexual drive. It was not until these drives were brought under control by rigidly enforced social codes that civilization could emerge.

With the domestication of animals and the agricultural revolution the concepts of private property, kinship, lineage, inheritance laws, and social ordinances developed. Paternity now became important, and if women were allowed to pursue their erotic needs, paternity could never be certain. Men, therefore, imposed restrictions on women's sexuality, often couching them in religious or superstitious rationalized fashion. However, it was the economics of the development of civilization that forced men to impose it and women to endure it.

A question arises as to how the male came to the position where he could, by dint of some superiority, impose his wishes on the female.

Zilborg,[5] spoke of the earliest or "protosocial" stage of man's development as being a gynecocentric period, and he notes that this antedates Freud's point of departure, "the primitive horde." In the very early period the child had only the mother to be bound to, to worship and to hate. The woman's choice of male was free. This is still seen in certain savage tribes, such as the Awemba of East Africa. One notes, when traveling in Africa, that tribes that have developed agriculture have reached a later step in male-female relationships. The female is now essentially a slave, purchased for the "bride price" by the man. She then does most of the heavy work, tending the crops as well as the home, and has few rights and little social position of her own. The proto-social female, in order to try to assure having the offspring most likely to survive, would pick the strongest most aggressive males. As a result of this natural selection imposed upon him by the female, Zilborg speculates that man finally became sufficiently strong and aggressive that he could impose his will on her. The discovery of his paternity was then the spark that set off the revolution, dethroning the woman from her high biological position of privilege and her primitive authority.

Furthermore, as women basically had a greater sexual need, which is not fulfilled simply by the mechanical act of coitus but involves a full sexual cycle of pregnancy and infant suckling for more complete fulfillment, the female came to understand her dependence upon the male. This enabled the male to assert his domination and create the rules which now deprived the female of her biological security, her ability to choose, and the right to be her own mistress. It also allowed the male to exercise his primitive narcissism and gratify his organ sexuality. He now had the basis for guaranteeing his paternity and the prerequisite for the creation of an economic order. He had the power to impose his will and was secure in his wife, his female slave who would roast his meat, tend his crops, and attend to any of his other needs. With this much value coming out of what he could offer with his penis, it is not surprising that the worship of Priapus supplanted the worship of the mother.

But why the hostility that man bears toward woman and the inordinate and institutionalized depreciation of the female role? Once the female had become the slave her biologic role was a nuisance to the male. He needed her as a beast of

burden and toil, and when she was pregnant, she was not able to serve him as well, and when she was tending her baby, first seen by the male as a useless intruder, it kept her away from doing what was useful in meeting the male's needs. We still see many male patients, supposedly not primitive men, who express the same feelings in relation to their wives and children.

However, even more important in the development of the hostility toward women was the fear and envy that the male felt in relation to the female. Envy of the breast and envy of mother's power precedes any penis envy in the development of the child. For children of both sexes early dependence is on the mother, and she, not father, represents the "power structure." The little girl is allowed to identify gradually with mother and is allowed to share in the mysteries of her nurturant role. The little boy is excluded from this aspect, can only be allowed to identify with mother the aggressor, and fantasize that some day he will have value when he will be able to join father in an outside world, which, for yet many years, remains alien to him.

This is underscored when one watches a little boy and girl play "house." A typical scenario might go as follows. They both have breakfast and then the boy goes off to work. This means he goes into the next room and wanders around with nothing to do until the girl says, "You can come home now." In the meantime the girl will have undressed, bathed, and dressed her doll, rocked it to sleep, cleaned and neatened the room and set the table with her tea set. When she calls the boy to return, he comes in and resumes his "role" by giving her a kiss and sitting down at the table to be passively served. If he has a little more imagination, he might add to the script by saying, when he's called to return, that he has to work late and then will continue to wander aimlessly a little while longer before he returns to the scene of the action.

We often see in the pubescent male suspicion and anger toward his female counterparts, who seem to share in the Eleusinian mysteries with their mothers. The females seem to be in collusion, while the young man is excluded. He does not have a comparable relationship with his father because the outside world, his father's world, is not yet understood by him, and he has no entry into it.

Though the man may envy the breast and the reproductive powers of women, it is the varied impressions of infancy and early childhood which leave the male with a heritage of fear and envy.[6] Those were impressions in which mother is seen as an omnipotent object who possessed inexhaustible supplies and power to give or withhold them as well as the power to inflict pain and to ward off pain and evil.

Even primitive man with all his economic and sadistic phallic superiority had to recognize that the female still possessed a unique power. She could produce children who clung to her and loved her while he had nothing to give them and was unable to arouse their affection.[5] He must have been helplessly jealous of the woman-mother.

In order to understand the dynamics of defensive sexism one must recognize the close relationship between envy and devaluation. It is a very common defense, this devaluation of an envied and unattainable object, for as soon as an object is devalued it no longer need be envied. There is an impressive amount of clinical, mythological and anthropological evidence of man's terror of women. Perhaps the most significant is the mythical attempt to reverse roles, such as the birth of Athena from the head of Zeus or the creation of Eve from Adam's rib by a masculine God. With devaluation the need for reversal myths to decrease fear and envy is lessened. Furthermore in the institution of couvade we find identification with the gravid and parturient woman giving fulfillment to the male's primitive strivings as well as giving him a proprietary title to the living product of parturition.

Much of our gender definitions and sex-role stereotypes are a reflection of the defensive devaluation of women. They attempt to reinstate and retain in adult relationships the protective and nurturant role of "the good mother."[6] Thus the desirable or "feminine" woman embodies these aspects and is understanding, caring, cleaning, grooming, feeding, comforting, soft and warm, but possesses no power and dominance that were part of the omnipotent and

envied mother. These are reserved for the male who identifies with the aggressor in the mother. As Lerner states, "In conventional adult relationships, males stereotypically experience a defensive reversal of early matriarchy yet retain the nurturant functions of the good mother."[6]

Women go along with the devaluation and the reversal as this makes them more desirable choices for the men who now are the ones who do the primary choosing. Thus their acceptance and perpetuation of the feminine stereotype leads to further idealization of men and the penis and devaluation of women. It seems as if they have now become willing co-conspirators in their own depreciation. This would account for a great deal of what is interpreted as their "inherent" masochism.

Conclusion

We have seen that neither embryologically nor physiologically is there any evidence to support any inherent superiority of the human male sex over the human female sex. Yet it seems that, in order to establish the economic systems involved in the progression toward civilization, man found it convenient and necessary to develop domination and suppress the basic physiological and sexual needs of the woman. Further, man's envy and fear of the woman's matriarchal role and his shame in his early dependence on her have led him to devalue her role. Women, in order to both survive and carry out a remnant of their basic role, have been willing co-conspirators in their own subjugation.

With the mechanical and technological revolution and the decreasing need for human slaves, women have gradually been emancipated. The fear and envy engendered by the child's world having been an essentially matriarchal one, where the omnipotent figure of mother both gratifies and frustrates the child, still exists. With shared parenting, perhaps the exclusive fear and envy of the woman will decrease and the need for the devaluation will be defused.

Bibliography

1. Thompson C: Cultural pressures in the psychology of women. *Psychiatry* 13:349-354, 1950.

2. Stoller R: The sense of femaleness. *The Psychoanalytic Quarterly* 37:42-55, 1968.

3. Sherfey MJ: The evolution and nature of female sexuality in relation to psychoanalytic theory. *J Amer Psychoanal Assoc* XIV:28-128, 1966.

4. Saltzman L: Psychology of the female: A new look. *Arch Gen Psych* 17:195-205, 1967.

5. Zilborg, G: Masculine and feminine: Some biological and cultural aspects. *Psych* 7:257-296, 1944.

6. Lerner, HE: Early origins of envy and devaluation of women. *Bull Menninger Clinic* 38:6:538-553, 1974.

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CASE REPORTS

Controversy abounds concerning the correct management of disseminated intravascular coagulation. There are heparin advocates, backers of component replacement, and purists who suggest simply vigorous treatment of the underlying condition. The truth is there is a place for each modality of therapy although there may not be a role for each in every case of DIC. This case report illustrates various stages of coagulopathy and indicates there are priorities of treatment to be followed as changes occur.

Disseminated Intravascular Coagulation: Priorities in Therapy*

John W. Myers, M.D., W. H. Hasbrouck, M.D., and Ben Corteza, M.D./Montclair

Disseminated intravascular coagulation is a life-threatening complication of a variety of conditions encountered in all phases of the practice of medicine and surgery. Every practicing physician should be alert to the possibility of its occurrence and should have a plan of therapy in mental readiness. The most recent literature is reviewed in conjunction with a case presentation.

Case Report

A 16-year-old male was in excellent health until he suddenly experienced symptoms suggestive of viral gastroenteritis. Within three days he went from a state of mild illness to that of total collapse and was brought to the emergency room. Upon arrival he was found to be in a state of shock with fever to 105°, nuchal rigidity and with petechiae and ecchymosis scattered over the body. A diagnosis of meningococcal meningitis with Waterhouse-Friderichsen Syndrome was made and the patient was admitted to the intensive care unit.

Initial therapy was directed toward the meningitis with appropriate antibiotics, while the shock was treated with intravenous fluids and steroids. Laboratory studies revealed a low platelet count of 27,000; within three hours new bleeding points appeared from the conjunctivae to the feet. By this time hemostatic defects were obvious as the platelet count continued low, the prothrombin time and partial thromboplastin time were elevated, fibrinogen depressed, and fibrin degradation products markedly elevated. A diagnosis of disseminated intravascular coagulation (DIC) was made.

Since significant bleeding continued after the "trigger" had been treated, heparin therapy was instituted to inhibit the production of thrombin. Within twenty-four hours, the platelet count had risen to 37,000 and fibrinogen to 450; however, signs of a major hemorrhage appeared. There was emesis of coffee-ground material and explosive loss of large amounts of blood and fluid by rectum. The patient became very apprehensive, restless, and shocky with a drop in central venous pressure, unobtainable blood pressure, and tachycardia. With the appearance of life-threatening hemorrhage, in spite of measures to remove the inciting mechanism and institution of heparin therapy, component replacement therapy was now indicated.

The third phase of therapy was begun with whole blood replacement because of the large volume loss and state of shock. The heparin was counteracted with protamine and within twenty-four hours the patient was stable, out of shock with no new signs of hemorrhage. Laboratory studies reflected a return to normal in all hemostatic elements except the platelets which did not return to normal until a week later. The patient was discharged from the hospital on the 27th day and went on to complete recovery.

Discussion

Review of the most recent literature reveals that DIC is a common complication of many illnesses and often results in a fatal outcome. Agreement among the authors suggests that a program of treatment can be outlined according to certain priorities.

Priority 1 — The underlying condition. As in the case report, initial treatment should be directed toward the trigger mechanism and this is very often the only therapy needed.[1-8] Three cases of septic shock complicated by DIC were reviewed by Corrigan[3] who noted that adequate antishock and antisepsis treatment was all that was required. Holzbach[5] reporting on DIC in pregnancy stated that evacuation of the uterus is often the only treatment required. Bick and Adams,[6] in their recent review, agree with Edson[1] and Weiss[7] that the most important aspect of the management of DIC is treatment of the underlying disease.

*This work is from the Mountainside Hospital in Montclair, where Dr. Myers is attending in the department of family medicine, Dr. Hasbrouck is attending in the department of medicine, and Dr. Corteza is a resident in internal medicine.

Priority 2 — When the trigger mechanism cannot be controlled in a reasonable period and significant bleeding continues, heparin therapy must be considered. Most of the authors reviewed concur in this opinion, while Mulcare, *et al.*,[1] strongly assert: "We feel that the treatment of choice for DIC is intravenous heparin." Some writers caution against its use in certain conditions such as acute hepatic failure[9] and intracranial hemorrhage.[13] A general guideline to be found in most discussions is that massive bleeding is a contraindication to heparin therapy and the next step would then be component replacement.

Priority 3 — Massive or continued hemorrhage after attempts to remove the trigger and/or heparin therapy have failed indicates component replacement therapy[1,6,7,10,13] The reservation of platelet therapy until priorities one and two have been exercised is advised by all authors reviewed. Some[11,12] suggest that obstructive platelet aggregation may be the primary intravascular abnormality and "if the intravascular clotting process is still present, the use of components will simply add fuel to the fire."[6,7] Several reports advise the use of heparin and platelets concomitantly[2,5,8,12] suggesting that the heparin protects against platelet dysfunction.

Priority 4 — When all above steps have failed and there is evidence of fibrinolysis, the use of EACA, epsilon aminocaproic acid (Amicar,® Lederle) is next to be considered.[1,6,7,15] This step should be taken with extreme caution as this drug has been known to cause disseminated thrombosis and renal thrombosis.[1,15] However, it has been proved to be of help when given with heparin in reversing the clotting defects.[1]

References

1. Edson J R: Mechanisms and dynamics of intravascular coagulation. *Geriatrics* 29: 65-78, 1974.

2. Sherman L A: Therapeutic problems of disseminated intravascular coagulation. *Arch Int Med* 132: 446-453, 1973.

3. Corrigan J J: DIC in septic shock. *Am J Dis Child* 126:629-632, 1973.

4. Yoshikawa T T: Bacteriodacae bacteremia with DIC. *JAMA* 56:725-727, 1974.

5. Holzbach R T: Acute fatty liver of pregnancy with DIC. *Ob Gyn* 43:740-744, 1974

6. Bick RL and Adams T: Disseminated intravascular coagulation: Etiology, pathophysiology, diagnosis and treatment. *Medical Counterpoint* 6:38, 1974.

7. Weiss A E and Cederbaum A L: Diagnosis and treatment of intravascular coagulation. *Am Fam Phys* 8:110-119, 1973.

8. Mulcare M J, *et al*: DIC as a complication of abdominal aortic aneurysm repair. *Ann Surg* 180: 343-349, 1974.

9. Hillenbrand P: Significance of intravascular coagulation and fibrinolysis in acute hepatic failure. *GUT* 15: 83-88, 1974.

10. Pettid F J: Meningococcal meningitis — A review in brief. *Cont Ed for Fam Phys* 1:51, 1973.

11. Timperly W R, *et al*: Cerebral intravascular coagulation in diabetic ketoacidosis. *The Lancet* 1:952-956, 1974.

12. Olssen P, *et al*: Effects of slow defibrinogenation on the canine lung. *J Trauma* 14:325, 1974.

13. Drayer B P: Disseminated intravascular coagulation and head trauma. *JAMA* 231: 174, 1975.

14. Smith H: Disseminated intravascular coagulation in pregnancy. *JMSNJ* Vol. 71:729-736, 1974.

15. Jona J Z, *et al*: Disseminated intravascular coagulation after excision of giant hematoma. *Am J Surg* 127:588-591, 1974.

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In renal carcinoma the kidney is usually surrounded with large dilated veins. The wall of these veins is friable and excessive blood loss can occur. There are numerous arteriovenous fistuli in the large tumor which can add to the blood loss. Embolization of those branches of renal artery which feed the tumor will diminish the blood loss, obliterate the arteriovenous fistuli and will cause obliteration of the collateral veins. The technique of embolization and surgical result is described.

Embolization of Renal Artery for Carcinoma

Andrew Sporer, M.D., and Daniel Trachtenberg, D.O./East Orange*

The amount of blood loss during surgery for renal carcinoma can be very substantial. The more intrarenal branches of renal veins that are thrombosed the more marked is the dilatation of the collateral veins. These dilated collateral veins have a very thin fragile wall and excessive bleeding can occur with the slightest trauma. Arteriovenous fistulas are present in the renal tumor and the more marked the arteriovenous communication the higher the blood volume within the kidney afflicted with the tumor. These fistulas can add additional dilatation to the already large collateral venous system.

The kidney itself contains a substantial amount of the circulating blood, which is lost during surgery. Any modality which can diminish the blood loss is a benefit to the patient and will facilitate planned surgery. Embolization of the renal artery prior to surgery can accomplish this aim. If embolization is done twenty-four hours prior to surgery, it will prevent any additional inflow of blood. The diminished blood content and the twenty-four hour drainage of the blood from the kidney will decrease the size of the collateral veins, diminish the blood volume of the kidney and will thus lessen the blood loss during surgery. This therapeutic modality was used during our last nephrectomy.

The embolization of an artery was advised in 1930 and 1962 by Luessenhop.[1] The clinical application of this procedure, for visceral lesions, was applied by several specialties,[4,5,6] since Djindjian's[2,3] publication in 1971.

The following report is our first case, in which this technique was used.

Case Report

A 46-year-old male was admitted to our hospital in 1974 with a fractured left hip. A pleural effusion considerably delayed his recovery. Aspiration of the pleural fluid and pleural biopsy failed to prove the presence of malignancy. Eventually, the right kidney was palpated; there was no history of genito-urinary complaints. Intravenous pyelogram, nephrotomogram, and renal angiogram revealed a huge renal carcinoma. Aortogram demonstrated a single main renal artery with massive neovascularization and arteriovenous fistulas. The right renal vein was not seen. A venacavagram showed extrinsic pressure compressing the vena cava without invasion. Embolization of the renal artery was performed prior to nephrectomy.

Technique

A femoral visceral catheter 7.0 French was introduced into the main renal artery and selective arteriogram was performed. Gelfoam was cut into 1 mm square pieces and soaked in contrast material in a 10 cc syringe for approximately ten minutes. The catheter was further advanced into the ventral branch to the upper pole and the gelfoam and contrast solution was injected very slowly by hand under fluoroscopic control. The contrast allowed visualization of the gelfoam particles during injection. The circulation to the injected area became slow, and the contrast medium remained in that area for a period of time. The catheter was slowly withdrawn, and the procedure was repeated in a lower vessel.

*From the Veterans Administration Hospital, East Orange, where Dr. Sporer is Chief of the Urology Department and Mr. Trachtenberg is Chief of the Radiology Department. Dr. Sporer also serves as attending urologist at Martland Medical Center, Newark and is Associate Professor of Urology at New Jersey Medical School, CMDNJ.

Figure 1—Shows renal angiogram and tumor mass.

Figure 2—Post embolization — avascular renal mass.

Following the procedure, another arteriogram was performed with less contrast material.

There was a persistent amputation of the distal portion of the injected vessels with an enormous decrease in neovascularity. (Figures 1 and 2)

In spite of the low volume of the contrast medium on second injection, reflux of the material into the aorta occurred. This indicates back pressure from the embolized vessels.

Twenty-four hours after embolization a radical transperitoneal nephrectomy was done with practically no bleeding. The usually dilated perirenal veins were absent and two-thirds of the kidney was completely bloodless. The patient had an uneventful recovery.

Summary

An embolization of the renal artery twenty-four hours prior to surgery was done. The procedure diminished the blood loss and probably the tumor mass by reducing the renal blood content.

References

1. Luessenhop A J, Spencer T: Artificial embolization of cerebral arteries. Report of use in a case of arterio-venous malformation. *JAMA* 172:1153-1155, 1960.

2. Djinjian R, Houdart R, Cophignon J, Hurth M, Comoy J: Premiers essais d'embolisation par voie femorale de fragments de muscle dans un cas d'angiome médullaire et dans un cas d'angiome alimenté par la carotide externe. *Rev Neurol* 125:119-130, 1971.

3. Djindjian R, Cophignon J, Théron J, Merland J J, Houdart R: L'embolisation en neuroradiologie vasculaire. Technique et indications à propos de 30 cas. *Presse Méd* 1:33, 1972.

4. Almgárd L E, Fernstróm I, Haverling M, and Ljungvist A: Treatment of renal adenocarcinoma by embolic occlusion of renal circulation. *Brit J Urol* 45:474-479, 1973.

5. Doppman J L, Di Chiro G, and Ommaya A K: Percutaneous embolization of spinal cord arteriovenous malformations. *J Neurosurg* 34:48-55, 1971.

6. Lalli A F, Peterson N, and Bookstein J J: Roentgen-guided infarctions of kidneys and lungs: Potential therapeutic technic. *Radiology* 93:434-435, 1969.

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MEDICAL HISTORY

Jonathan Elmer: Medical Progenitor*

The Elmer family of New Jersey, through two centuries, has produced a line of medical doctors unsurpassed in number and distinction in the annals of our country. The initial physician of this clan was Dr. Jonathan Elmer, a member of the first medical class to be graduated from the College of Philadelphia (now the University of Pennsylvania) in 1768. Fourteenth president of The Medical Society of New Jersey in 1787, he was followed in this office by Dr. William Elmer (1814-1889) of Bridgeton, elected in 1860, Dr. William Elmer (1840-1908) of Trenton, elected in 1895 and Dr. Henry W. Elmer (1847-1907) of Bridgeton, elected in 1905. The number of other physicians of the family, moreover, is an impressive one. The town of Elmer with its Community Hospital in Cumberland County now bears the name.

Jonathan Elmer, a descendant of John, Bishop of London, in the sixteenth century, was a grandson of Edward Elmer and his wife who emigrated from England to Massachusetts in 1632. His father, The Rev. Daniel Elmer, was minister at Cedarville, N.J., where Jonathan was born on Nov. 29, 1745. The son was one of the first ten men in this country who received the degree of Bachelor of Medicine, after a three-year course, on June 1, 1768. Elmer was a preceptee of Dr. John Morgan, first professor of medicine at the University of Pennsylvania, beginning in 1765. Continuing his studies, upon presentation of a thesis, *De sitis in febribus causis et remediis,* dedicated to Benjamin Franklin, Jonathan Elmer received the degree Doctor of Medicine in 1771 — one of the four original M.D. diplomas granted by the University of Pennsylvania.

Returning to his home state, Dr. Elmer became an eminent practitioner. His friend Dr. Benjamin Rush said of him that "in medical erudition he was exceeded by no physician in the United States." In 1772 Elmer was elected to the American Philosophical Society, and in the same year became a member of The Medical Society of New Jersey. As presiding officer of the latter during 1787-88, he read two scientific papers which were later published in the Society's *Transactions.*

Turning to politics at the outbreak of the Revolution, Dr. Elmer had an equally distinguished public career. A delegate to the Continental Congress for five years, he was inspector of military hospitals during the War. Reading law after medicine, he was Surrogate of Cumberland County from 1784 to 1802, and a Judge in the County Courts until 1814. A member of the New Jersey Legislature in 1780 and 1784, Elmer subsequently served in the U.S. Senate from 1789 to 1791. He was a trustee of Princeton College from 1782 to 1795. He died on Sept. 3, 1817, and was buried in the Presbyterian Churchyard at Bridgeton. His unpublished writings on medical and legal, philosophical and literary matters are now owned by the widow of the late Dr. Robert P. Elmer, a general practitioner in Wayne, Pennsylvania.

Drs. Walter G. (Emeritus Professor of Orthopedics at the time of his death in 1960) and Robert P. Elmer, sons of Dr. William Elmer of Trenton, represented the fifth generation of the family to hold medical degrees from the University of Pennsylvania. It is to be anticipated that future generations of the Elmer tribe will continue these illustrious examples of service to medicine and to the nation.

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*This item of Medical History was prepared by Fred B. Rogers, M.D. and is reprinted from *JMSNJ* 62:576 December, 1965.

Anesthesia for Surgery Is American Discovery*

A unique and highly important American contribution to medicine was the first use of ether as an anesthetic for surgery.

Prior to the 1840's surgery and dentistry were grim affairs. There was no dependable means of relieving pain during the operation. A stiff drink of strong alcoholic beverage was the surgeon's major anesthetic, and this did not actually prevent pain. The surgeon had to learn to work very fast to get it over with before the patient succumbed to shock or loss of blood, while his patient was strapped to the operating table. Surgery was a last resort — to be avoided if at all possible.

A young Georgia physician, Crawford W. Long of Jefferson, Georgia, was the first man to use ether for surgical anesthesia other than a dental procedure. On March 30, 1842, Dr. Long used ether to remove two small tumors from the neck of a friend. The operation was successful and the patient suffered no pain.

Other pioneering work was under way in New England, and a report appeared in a Boston journal in 1846. The published report was promptly attacked as "quackery" and a lively exchange in the medical literature ensued for a time until the value of ether as an anesthetic was proved to the satisfaction of the medical community of the day.

One of the New Englanders who did the first experiments with ether, Dr. W. T. G. Morton, gave up his dental practice to devote full time to anesthesia, and is most likely the first professional anesthetist in American medicine. It was Dr. Oliver Wendell Holmes who suggested the name "anesthesia" for the pain-free condition and "anesthetic" for the substance that induced anesthesia.

From America the news spread to Europe in 1846 and the European surgeons were quick to take up the use of ether. Dr. Long early in his work began using ether to relieve the pains of childbirth. This precipitated a moral argument from clergymen and many physicians that childbirth pains were something that should be endured, but this eventually passed.

Oddly, ether first came to the attention of medical men through its use by sideshow entertainers. These men traveled about the country giving demonstrations by having men in the audience inhale ether and become pleasantly drunk. Ether parties became the vogue among young persons who inhaled the substance at parties. Probably its first use as an anesthetic was in January, 1842, for a tooth extraction in Rochester, New York, when a young chemist who had been to some of the parties administered ether to a young woman dental patient. It was after a public demonstration that Dr. Long got the idea of administering ether to a patient to operate without pain. Dr. Long had witnessed ether parties while a medical student at the University of Pennsylvania.

At the founding meeting of the American Medical Association in Philadelphia in 1848 the subject of anesthesia was prominent on the scientific program. Physicians from throughout the United States learned of the discovery at the convention, and use of ether spread rapidly thereafter. Some surgeons still were reluctant to use ether in their operations, but the Committee on Surgery of that first AMA meeting declared that the benefits offset the risk.

*From "Highlights of 200 Years of American Medicine, No. 2," prepared by the American Medical Association.

210th Annual Meeting — June 4-8, 1976

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3. Threatened abortion.

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Clinical Pathological Conference Aftermath*

Lazar M. Schwartz, M.D., East Orange

In December 1973, a 45-year-old male complained of hesitancy and, at times, marked difficulty with urination and fecal incontinence. Twelve days after a transurethral resection under spinal anesthesia at another hospital, he was hospitalized for abdominal pains and hematuria. A cystogram at that time was reported as normal. He subsequently developed numbness, followed by pain which radiated from the buttocks, down the back of his legs to the ankles, but not into his feet, associated with difficulty in walking. This prompted admission to the Veterans Administration Hospital one month later. On admission, neurologic examination revealed:

Mental status: Alert, oriented, and displaying good judgment.

Cranial nerves: Normal.

Motor system: No atrophy or fasciculation in the upper or lower extremities. There was weakness of plantar flexion bilaterally, more on the left.

Reflexes: Deep tendon reflexes — upper extremities, bilateral, 2+; right knee: 1+; left knee: absent; ankle jerks: absent. Abdominal and cremasteric reflexes: normal; plantar reflexes in flexion, bilaterally.

Sensory system: Position: normal. Vibration: loss of pin prick sensation in saddle area; decrease on the posterior aspects of thighs and legs and lateral aspect of the left leg. Dissociation of pain and temperature: absent.

Gait: Slightly broader base. Patient could walk on heels but not on toes: Straight leg raising at 70 degrees associated with pain in the hamstrings.

Coordination: Finger to nose normal. Heel to knee slightly ataxic, bilaterally. Romberg: negative. Closing of the eyes led to unsteadiness with tendency to fall to the right and back.

At that time, a step-wise approach on clinical grounds alone seemed appropriate.

Localization of the Lesion

The motor lesion involves the plantar flexion of the foot. The group of muscles that act cooperatively to this effect and their source of innervation is as follows:

		Origin				
Muscle	*Nerve*	*L4*	*L5*	*S1*	*S2*	*S3*
Gastrocnemius	Tibial			+	+	+
Soleus	Tibial			+	+	+
Plantaris	Tibial	+	+	+	+	+
Peroneus longus	Superficial peroneal	+	+	+	+	
Peroneus brevis	Superficial peroneal	+	+	+	+	
Tibialis posterior	Tibial		+	+	+	+
Flexor hallucis longus	Tibial		+	+	+	
Flexor digitorum longus	Tibial		+	+	+	+

The peronei and tibialis posterior act alone if there is no resistance to be overcome. Flexores digitorum and hallucis act when the resistance is greater. Gastrocnemius acts synergistically.

The pains on straight leg raising at 70° were in the hamstring muscles:

		Origin				
Muscle	*Nerve*	*L4*	*L5*	*S1*	*S2*	*S3*
Biceps fem. long head	Sciatic (tibial)			+	+	+
Biceps fem. short head	Sciatic (peroneal)		+	+	+	
Semitendinous	Sciatic (tibial)		+	+	+	
Semimembranous	Sciatic (tibial)		+	+	+	

*Case discussed at the Clinicopathological Conference of November 7, 1974, prepared in the Department of Pathology, Veterans Administration Hospital, East Orange, New Jersey. Consultants were Monica I. Aleniewsky, M.D., Anesthesiology; Norman J. Ertel, M.D., Medicine; Dean Young, M.D., Neurology; Maurice J. Small, M.D., Nuclear Medicine; Diethelm H. Boehme, M.D., Irving Coppel, M.D., Thomas S. Chen, M.D., Edith Howard, M.D., and Fritz Tassy, M.D., Pathology; Rama B. Rao, M.D., Radiology; and Andrew Sporer, M.D., Urology.

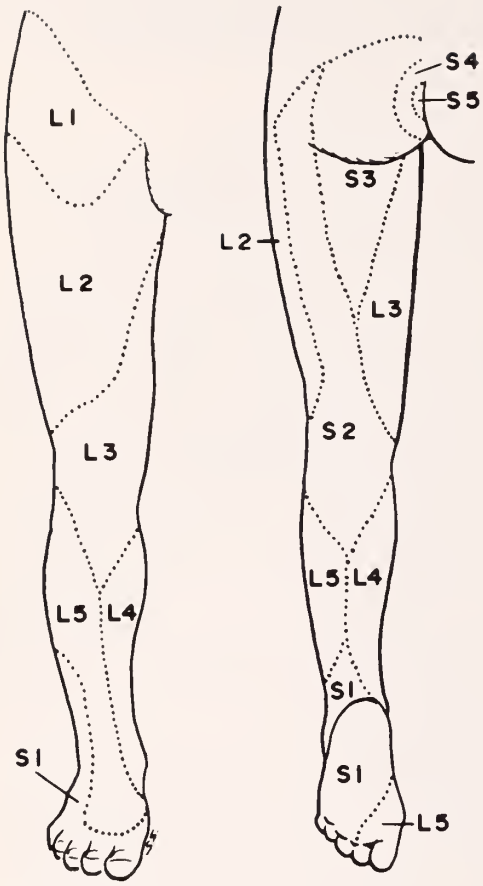


Figure 1—Dermatomes of the lower extremity.

The sensory lesion involved the following dermatomes:

	L4	*L5*	*S1*	*S2*	*S3*	*S4*	*S5*
Left		Decr.	Decr.	Decr.	Loss	Loss	Loss
Right		Decr.	Decr.	Decr.	Loss	Loss	Loss

From Figure 1, it appears that the lesion is localized in the lower segment of the spinal cord involving the conus medullaris or the cauda equina. Lesions of the cauda equina alone vary widely in their manifestations and are always difficult to differentiate from those of the plexus. They are attended by pains, asymmetrical areflexic paralysis, radicular sensory loss and, only later, by dysfunction of the sphincters. In contradistinction, in lesions of the conus medullaris, the sphincteric disturbances, the hypoesthesia or anesthesia over the sacral dermatomes and weakness of the muscles of the lower extremity are early manifestations. The negative Babinsky sign indicates that the lesion is below the fifth lumbar segment.

Bladder dysfunction also helps to localize the lesion. The bladder empties by means of a reciprocal action of its involuntary musculature, the detrusor and the internal sphincter. They receive their sympathetic fibers through the hypogastric nerves (1st and 2nd lumbar ganglia, with contributions from the 3rd and 4th) and their parasympathetic fibers from the sacral plexus (S2, S3, S4) through the pelvic nerves. The external sphincter and the voluntary muscles of the perineum are innervated by the pudendal nerves (S2, S3, S4). The sympathetic center for micturition lies in the lumbal cord while the parasympathetic center lies in the S2, S3 segments of the cord. The control of micturition is also effected by cerebral mechanisms in addition to those at spinal level.

The disturbance in our case is of the atonic type, in which the tone of the detrusor muscle is decreased, the capacity of the bladder is increased, and the sensation of bladder distention is lost. Although such disturbance can also be found in higher lesions, involving the posterior roots of the spinal cord or the posterior columns, — lesions that interfere with the reflex arc — the associated motor lesions with similar spinal cord distribution support this localization.

The rectum receives its innervation through the same channels but the voluntary control is exerted over the external sphincter. In lesions of the sacral region, the rectum empties with elevation of the intrarectal tension since it is devoid of voluntary inhibition.

The gait abnormality somewhat resembles the tabetic type and helps in localization of the lesion in the spinal cord.

Clinical Context of the Main Symptomatology

Past history revealed the following:

1. Heavy and constant abuse of alcohol for the preceding 20 years.
2. Heroin addiction from age 14 until several months prior to admission.
3. Cirrhosis of liver, mixed type, diagnosed by biopsy in 1968.
4. Peripheral neuropathy, treated, improved, in 1968.
5. Urinary tract infection (E. coli and B. proteus) treated, 1968.
6. Smoking history: 1 package/day for 16 years.

Family and social history: This unmarried patient worked as a shipping clerk for 16 years, and, although under probation for possession of drugs, was never institutionalized. His mother died of carcinoma of the stomach at the age of 68 and his father died of carcinoma of the stomach at the age of 63. An older brother has gastric ulcer and arthritis, and is alive.

Diagnostic studies performed during the hospitalization:

Chest x-ray, intravenous pyelogram, lumbosacral x-ray, and lumbar myelogram were essentially normal;

EKG: normal;

SMA-18, CBC, and prothrombin time were essentially normal;

PPD skin test: 2 cm induration with erythema at the site, after 24 hours;

Cystogram: Desire to void at 300 cc; bladder capacity 900 cc, after which the testing was interrupted.

Spinal taps:	I	II (after one-month interval)
Pressure	130 mm H_2O	180 mm H_2O)
Protein	126 mg/dl	135 mg/dl
Glucose	75 mg/dl	50 mg/dl
Chloride	128 mg/dl	
Globulin	3+	4+
VDRL	negative	
Cultures (bact & fungi)	negative	

Urinalysis: Protein: 4+; Sugar: 0; WBC: 1; RBC: 5-10; many bacteria.

Liver biopsy: Macronodular cirrhosis and noncaseating granulomas.

Relationship of the Transurethral Resection (TUR) to the Exacerbation of the Symptoms

It appears clear that the neurologic symptoms antedated the TUR. The reasons for the TUR were obscure. The usual treatment of a neurogenic bladder is by an indwelling catheter with precautionary measures to prevent infection. Since the retention was due to the relative preponderance of sympathetic influences, parasympathetic stimulating drugs such as carbachol or distigmine might be added. Surgery is indicated only in chronic cases and bladder neck resection is the procedure of choice. The size and the pathologic findings of the prostate at the time of the TUR were unknown to the VAH staff, which happens frequently in practice. Most probably there was a hypertrophic bladder neck that prompted the surgery. Prostatectomy itself does not cause nerve injury. The need for an indwelling catheter, which was present on admission, is best explained by the weak contracting force of the detrusor muscle, decreasing the resistance of the urethra to the point of causing urinary retention.

Exacerbation of the symptoms by spinal anesthesia for the TUR can be discounted, since there are practically no neurologic complications after this procedure. The hematuria that occurred twelve days after the TUR is not unusual since it may occur any time until the posterior urethra is fully re-epithelialized. Accordingly, it was concluded that there was no relationship between the TUR and the exacerbation of symptomatology.

The Etiologic Labyrinth

Among the etiologic possibilities, some deserve consideration:

1. Spina bifida occulta: It is claimed that this condition involves a quarter of the population with minor forms remaining asymptomatic for life. Signs of myelodysplasia are not mandatory in such cases. However, the normal spine x-ray, the absence of an overlying area of hypertrichosis, fat pad, or dimple make this possibility very improbable.

2. *Prolapsed lumbar disc:* The sex and age of the patient and his profession are reasons for this consideration. Almost all lumbar herniations occur between the fourth and the fifth lumbar or between the fifth lumbar and the first sacral body. A disc protrusion compresses the spinal nerves running to the foramen one segment below. Occasionally, protrusion may result in sequestration of a portion of disc that acts as a space-occupying lesion involving the nerves in the cauda equina. The spinal fluid may show increased protein, and normal cell count. it should, however, be discounted in this patient on the basis of a normal spine x-ray and myelogram, absence of rapid onset, larger sensory loss, and apparent lower localization of the lesions.

3. *Chronic arachnoiditis:* The history of a spinal anesthesia and a positive PPD test are suggestive of this. This type of lesion is associated with neurologic symptoms due to entrapment of spinal roots by hyperplastic meninges and infiltration of those with chronic inflammatory cells. In cases after spinal anesthesia, the cause was not determined but was ascribed to the irritative action of the detergent used in cleaning glassware and instruments. Hypersensitivity to the anesthetic was also suggested, but never proved. Furthermore, introduction of foreign material into the subarachnoid space is followed by sterile meningitis with some increase in the CSF protein. Syphilis is excluded as a cause by the negative VDRL and absence of positive history. The existence of a chronic adhesive arachnoiditis is primarily excluded by the myelogram. Other considerations are that the lesion antedated the anesthesia, and the chest x-ray and history of tuberculosis are negative.

4. *Polyradiculopathy:* There is a history of continuous alcohol abuse, a proved cirrhosis of the liver and a diagnosis of peripheral neuropathy substantiated by electromyography in 1968. All vitamin levels at that time were normal except folic acid.

Untreated alcoholic neuropathy usually has a progressive course until the patient is confined to bed. However, the spinal roots (as is the case here) are exceptionally involved and other symptoms of peripheral involvement of the nerve axon are present. The disease is arrested upon adequate dietary measures and regeneration of the involved area occurs.

			Normal
Vitamin A	64.0	ug%	25 -70
Vitamin E	0.6	mg%	0.8-1.2
Beta carotene	98	ug%	40 -150
Folic acid	3.4	mug/ml	6 -24
Vitamin B-12	327	uug/ml	115 -800
Thiamin	22.8	mug/ml	20 -75
Biotin	316	uug/ml	200 -500
Pyridoxine B-6	42	mug/ml	35 -80
Nicotinic acid	5.1	mg/ml	4 -9
Ascorbic acid	0.5	mg%	0.5-2.0
Riboflavin B-2	244	mug/ml	100 -500

5. *Sarcoidosis:* This must be considered in view of the noncaseating granulomas present in the liver. It is known that sarcoidosis may involve any level of the nervous system and the meninges or peripheral nerves may become infiltrated with endothelial cells, giant cells, lymphocytes, plasma cells and mononuclear cells. Although the characteristic lesion is likely to be found elsewhere in the body, this is not mandatory. The calcium level in this patient was normal and the PPD test was positive. The PPD test is usually negative in sarcoidosis, which helps to discount this diagnosis in this patient.

6. *Tumor:* In the final analysis, tumor in this patient remains a high possibility. However, features of caudal tumors are relatively easy to define on paper, but less obvious at the bedside. Tumor may be intramedullary or extramedullary, and the latter applies to our case. Elsberg,[1] in a statistical analysis of 275 tumors involving the cord, showed the following distribution:

	Extra-dural	*Intra-dural*	*Both*	*Intra-medul-lary*	*Total*
Perineural fibroma	5	54			59
Meningeal fibroblastoma	4	69			73
Sarcoma	22	9			31
Angioma, hemangioblastoma	4	5			9
Fibroma	4	2			6
Neurofibroma	1	3	1		5
Dermoid		4			4
Lipoma	1	2		3	6
Ependymoma				11	11
Cyst	2	1			3
Ganglioneuroma	2				2
Chondroma, disc herniation	27				27
Granuloma	2				2
Metastatic	11	2	1		14
Unclassified (mostly cauda equina)		8			8
Glioma				14	14
Tuberculoma				1	1
	85	159	2	29	275

If the assumption of tumor remains, in the absence of a detectable or, at least, suspicious primary lesion, as was the case, hypothetical speculations are a mental exercise of little practical value. A histologic diagnosis is always warranted.

A lumbar laminectomy, with biopsy of the meninges, was performed on May 5, 1974. The neurosurgeon described the dura as not tense but beneath the dura, the arachnoid was thickened and markedly adherent to the underlying spinal nerve roots. Sections were taken for pathologic examination. The equina was explored and no mass lesion was encountered, but the nerve roots were bound to each other by dense whitish adhesions.

Pathologic examination revealed minute fragments of nerve and fibrous tissue showing clusters of atypical cells, whose identity was not ascertained, even with slide review by experienced neuropathologists.

Other Angles of the Case

About one month after admission, the patient had two seizure episodes which started as twitching of the right face, spread to the right arm and then became generalized. Electroencephalogram was within normal limits on two occasions. Posterior brain scan showed a moderate and diffuse increase of isotope uptake in the lower portions of the cerebral field on the left, which correlated with a more diffuse and less marked uptake of isotope in the anterior occipital region as seen on left lateral scan. It was suggested that a lesion, probably vascular, was present in the left occipital region. A second scan was apparently negative but a third examination was definitely abnormal with strong suspicion of tumor in the left occipito-parietal region.

In his comments, the physician wondered if, at the time of the first scan, a small tumor embolus, which initially produced the area of abnormality by occluding a small artery, appeared as a cerebral vascular accident, cleared up in the follow-up scan, but grew in the interim to be large enough to be visualized three and a half months later. A left carotid angiogram was essentially normal.

Routine investigations for detection of a primary tumor failed. The blood pressure and kidney function remained normal during the entire hospitalization. Motor function gradually deteriorated. Episodes of respiratory infection responded to antibiotic and supportive treatment, however, during the last episode, a tracheostomy was necessary to facilitate the tracheo-bronchial toilet. The patient became stuporous and expired shortly thereafter.

Highlights of the Post-Mortem Examination

1. Poorly nourished male, 161 cm tall, 40 kg in weight.

2. Pupils: round and equal, measuring 0.5 cm each.

3. Musculature of the lower extremities: slight atrophy.

4. Peritoneal, pleural, and pericardial cavities: normal.

5. Heart: 280 gm., unremarkable. Minimal skipped atherosclerosis of the large coronary arteries and thoraco-abdominal aorta. Major veins free of thrombi.

6. Block of lungs and trachea: 1150 gm., greenish mucoid secretion in the bronchial tree; focal consolidation left lower lobe; histologically, bronchopneumonia; severe congestion.

7. Stomach: chronic ulcer in the mid portion of the lesser curvature, confirmed histologically.

8. Liver: 1200 gm., firm with discrete nodular pattern; microscopically, early, active cirrhosis with intracanalicular cholestasis; small bile duct hamartomas, some containing bile.

9. Pancreas: normal.

10. Spleen: atrophic (60 gm.), microscopically, lymphoid follicles abundant and of normal size; sickling absent.

11. Kidneys (left: 250 gm., right: 200 gm.): showed a number of retention cysts (1-5 cm in

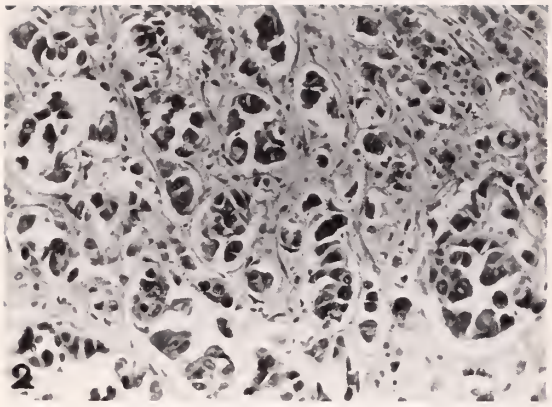


Figure 2—Histologic appearance of tumor in the better-preserved areas, close to the cortex. Clusters of tumor cells arranged in single layer and separated by fibrovascular septa.

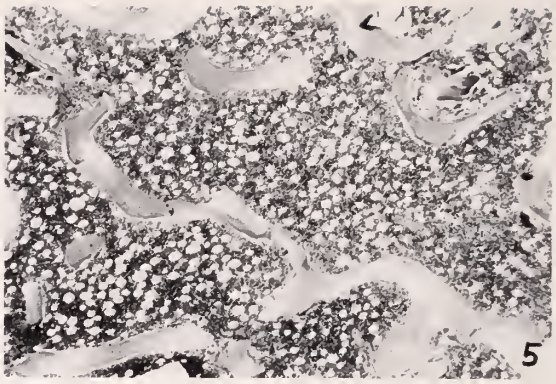


Figure 5—Bone of lumbar vertebra free of tumor involvement.

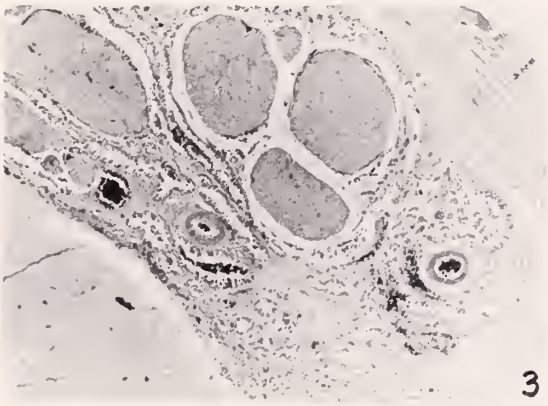


Figure 3—Nerve roots surrounded by tumor. In the left lower corner a focus of demyelination in the spine.

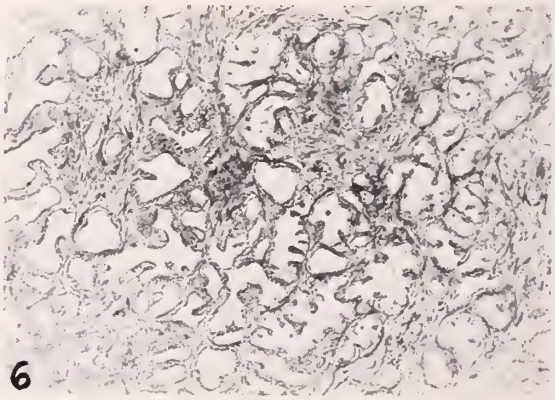


Figure 6—Adenomatous hyperplasia in remnants of prostate gland.

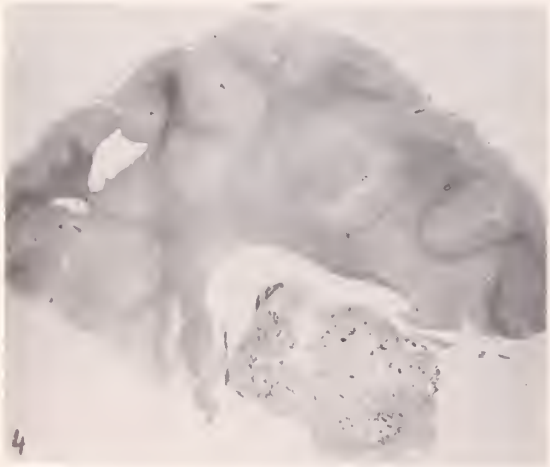


Figure 4—Tumor in the left thalamic region.

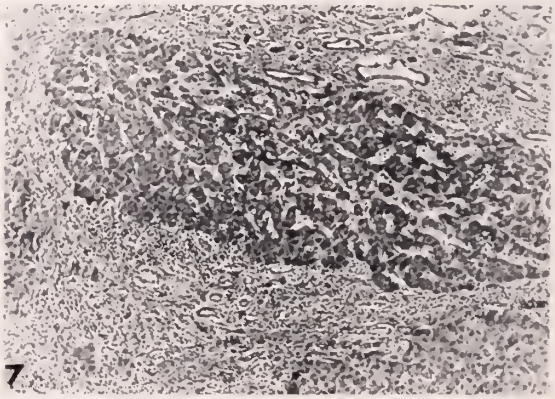


Figure 7—Active liver cirrhosis. Thick band of connective tissue surroundig a hepatic lobule. The severe inflammatory reaction and bile duct proliferation characterize the process as active.

diameter), separated by fibrotic bands or normal renal tissue; many contained clear fluid. Histologically, there were foci of acute and subacute inflammation in the cortex. Fibrotic glomeruli and areas of chronic inflammation in the walls and around the cysts suggested their ischemic origin. The medium size and small arteries showed minimal thickening. The pelves, ureters, and urinary bladder were not remarkable.

12. Prostate: The organ was surgically missing. Histological sections of remnants of the gland showed moderate adenomatous hyperplasia.

13. Testes: normal.

14. Thyroid gland: minimal fibrosis.

15. Mediastinal lymph nodes: Moderately enlarged; microscopically, non-specific reactive hyperplasia.

16. Gastrocnemium muscle: atrophy of the neural type.

17. Sternal and vertebral bone and bone marrow: unremarkable.

18. Adrenals: both adrenals contained tumor which, on the left, extended beyond the gland proper in a posterior direction. On the right, the tumor was ovoid in shape, measured 4 × 2 × 2 cm. and was whitish and firm. On the left, it appeared slightly larger, irregular in shape and similar in appearance. Histologically, it consisted of large cells, with smoky eosinophilic cytoplasm and large, usually single, nucleus. The cells seemed arranged around vessels, in single layers, with nests separated by conspicuous fibrous septa. Foci of necrosis were also noted. Some extracellular scattered globules of eosinophilic material were present within the nests. Mucin stain was negative.

19. The brain weighed 1280 gm. in the fresh state. The dura was thin, the superior sagittal sinus empty. The blood vessels of the Circle of Willis were free of atherosclerosis or abnormalities. In the deep white matter of the frontal lobe, there was a very small (0.5 × 0.5 cm) granular lesion, with indistinct edges. The first and second ventricles were greatly enlarged. The left posterior thalamus was replaced by a well-defined, partially hemorrhagic, granular, firm tumor mass measuring 2.5 × 3 × 2 cm and showed a small hemorrhage into the posterior horn of the left lateral ventricle. The cerebellum showed a similar but more diffuse tumor mass, measuring 4 × 3 × 3.5 cm, in its right hemisphere. Pons and medulla were free of lesions.

The spinal cord showed total agglutination with dura matter and leptomeninges for a distance of 4 cm in the lumbosacral region. On transverse sectioning, granular tumor tissue infiltrating all coverings of the spinal cord was noted. Thoracic and cervical cords showed degeneration of the posterior columns.

Histologically, the tumor was similar to that seen in the better preserved areas of the primary location. In the lumbar spinal cord, the anterior and posterior roots were encased in tumor tissue. The roots were almost totally demyelinated. At higher levels, small deposits of tumor were found in a similar location.

Final Diagnoses

1. Malignant pheochromocytoma, involving both adrenal glands with metastases to the left cerebral hemisphere, right cerebellum, and spinal canal in the lumbar region and cauda equina.

2. Cauda equina syndrome, clinical.

3. Early active cirrhosis with cholestasis.

4. Hepatic hamartoma, small bile duct type.

5. Chronic gastric ulcer.

6. Adenomatous hyperplasia of the prostate, status post-TUR.

7. Bronchopneumonia, left lower lobe.

Post Post-Mortem

Pheochromocytoma is found at autopsy with a frequency of 1/1000. This occurs in all age groups, but young adults are more frequently affected. Males are equally affected as females, ex-

cept before puberty when boys exceed girls in number. Bilateral tumors and malignant tumors are present in 10 percent of cases, but malignancy is three times more common when tumor is bilateral.

Extra-adrenal pheochromocytomas are frequent, being found in decreasing order of frequency in the following locations: superior para-aortic region; inferior para-aortic region (bifurcation); urinary bladder; intrathoracic; and occasionally, side of neck; upper dorsal segment of the cord; retroanal region.

Pheochromocytoma is primarily characterized by attacks of paroxysmal hypertension but the hypertension is sustained in half the cases, therefore the possibility of a pheochromocytoma should be investigated in any case of essential hypertension. Other symptoms include headache, nervousness, anxiety, tachycardia, sweating, abdominal pains, convulsions, and personality changes. The patients are thin, pale, and have cold hands. With delay in diagnosis an array of renal and cardiovascular complications may develop. Glycosuria or frank diabetes is not infrequent.

Association of pheochromocytoma with other disorders of hereditary origin is unanimously accepted. Of these, the most frequent are:

Familial type. Of 507 cases in one series, 33 were of this type. The familial tumors tend to be bilateral whereas the sporadic lesions are usually single.

Familial type, in association with medullary carcinoma of the thyroid, represents the Sipple syndrome.

Pheochromocytoma, medullary carcinoma of the thyroid and mucosal neuromas.

Pheochromocytoma and von Recklinghausen's disease.

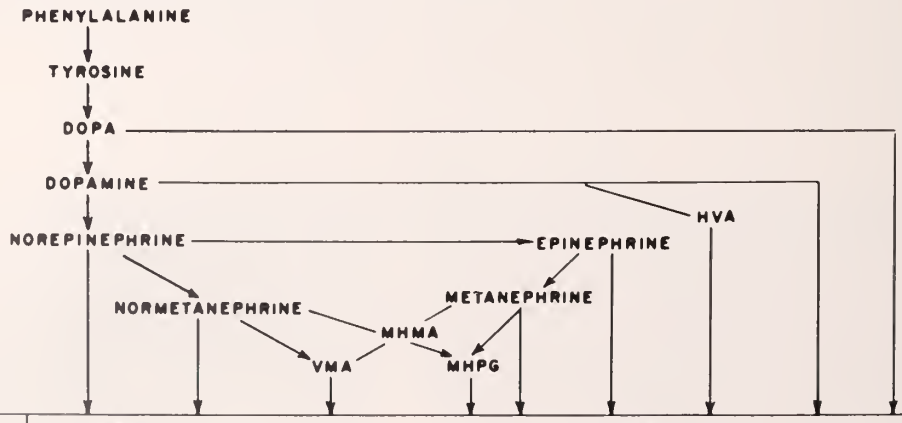
Pheochromocytoma and tuberous sclerosis.

Pheochromocytoma and Sturge Weber syndrome.

Pheochromocytoma, ataxia, and telangiectasia.

The tumor arises from nests of chromaffin tissue which are present at birth, but subsequently regresses. At the bifurcation of the aorta, these cells are remnants of the organ of Zuckerkandel, which secretes much noradrenaline in the fetus.

The major diagnostic step consists in the determination of catecholamines and their major metabolites in the 24-hour urine. The normal metabolism of catecholamines is shown in the diagram (Figure 8).



PLASMA µg/L	0.35-0.97				0.15-0.48		<0.05	<0.10
URINE µg/25mg CREATININE	0.22-1.14	1.04-2.39	70.3-210.0	2.09-6.82	0.05-0.69	5.0-230.0	2.30-3.93	
URINE 24 hrs	80µg		6.8mg	1.2mg	20µg			

Figure 8—Metabolism of catecholamines and plasma and urinary levels in normal subjects.

Crout[6] suggests that there is a relationship between the tumor size and the types of catecholamines excreted in the urine. Small tumors secrete lesser quantities which are preferentially methylated catecholamines. Location of the tumor is also important. Tumors of the adrenal medulla preferentially secrete free catecholamine (epinephrine and norepinephrine), while extra-adrenal tumors preferentially secrete normetanephrine intermediates. The catecholamine excretion pattern tends to be constant in the same patient, but malignant or benign forms cannot be distinguished by the type of the products excreted.

Provocative tests, used with discrimination, may be helpful in diagnosis. The drugs used for this purpose are:

1) Histamine diphosphate, 0.5–1 mg subcutaneously. Because of uncontrollable hypertensive attacks, it was replaced by other compounds.

2) Tetraethylammonium bromide, 200–400 mg intravenously. It should be noted that it may fail to elicit a response.

3) Mecholyl, 25 mg subcutaneously. This may also fail to evoke a response.

4) Dibenamine, regitine. These should not be used if the blood pressure at the time of the test is below 170/110.

5) Tyramine, 0.5–1 mg intravenously, and glucagon, 0.5–1 mg intravenously. These do not usually cause side effects.

Picard and Vitry, quoted in Hermann and Mornex,[5] distinguish two types of cells in the adrenal medulla:

a) Rhagiochrome cells, filled with fairly large, more or less densely packed refractile granules having chromophobe cytoplasm. These cells reduce both potassium-bichromate mixture and potassium iodide. They are rich in noradrenaline and are found in arterial regions.

b) Hyalochrome cells containing fine, only slightly refractile granules, which reduce the chromate-bichromate mixture but not potassium iodide. They are rich in adrenaline and are located in contact with veins.

In tumors, a distinction between these types of cells is less clear and many intermediate forms are found. Other authors distinguish only clear and dark types of cells.

The histological appearance of the tumor in this case was less enlightening at the primary site where fibrosis was extensive and necrotic areas large. This is not unusual because hemorrhage, necrosis, and cyst formation are frequently found in both the benign and the malignant variant. In metastatic areas, the tumor showed a closer resemblance to the classical picture. The cells were polymorphic, large, cylindrical or angulated in shape with large, single nuclei containing finely particulate chromatin. The smoky cytoplasm, the presence of extracellular globular eosinophilic material that did not stain for mucin, the arrangement of the cells around vessels in single cell rows, with deformation in shape where they were in contact with vessels, helped in clarification of the final histological diagnosis.

References

1. Alpers BJ, Mancall EL: *Clinical Neurology*, 6th edition. Philadelphia, Davis, 1971.

2. Brain L, Walton JN: *Brain's Diseases of the Nervous System*. London, Oxford University Press, 1969.

3. Vinken PJ, Bruyn GW, Biemond A, eds: *Localization in Clinical Neurology* vol 2. Amsterdam, North Holland, 1969.

4. Vinken PJ, Bruyn GW, eds: *Diseases of Nerves*, part I, vol. 7 and part II, vol. 8. Amsterdam, North Holland, 1970.

5. Hermann H, Mornex R: *Human Tumors Secreting Catecholamines*, New York, Macmillan, 1964.

6. Crout JR: Pheochromocytoma. *Pharmacol Rev* 18:651, 1966.

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

February 15, 1976

A regular meeting of the Board of Trustees was held on Sunday, February 15, 1976, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

AMA Membership . . . Noted that MSNJ is the recipient of a plaque in recognition of increased AMA membership for three consecutive years.

Federal Trade Commission Complaint vs. AMA . . . Noted that the Federal Trade Commission Complaint vs. AMA action currently is being heard before an Administrative Law Judge in Washington. The complaint alleges that the Principle of Medical Ethics prevents or hinders competition between medical doctors in violation of law. The AMA has retained Newton Minnow to defend its position and concurrently has appointed a special committee to study the problem of permitting physician advertising without creating an atmosphere of hucksterism.

Long Range Planning and Development . . . Voted to consider the recommendations contained in the report of the Special Committee on Long Range Planning and Development, even though Bylaw restrictions preclude their being acted upon by the 1976 House of Delegates, and to comply with Dr. D'Elia's request that the report be referred to the Standing Committee on Revision of Constitution and Bylaws with the understanding that, although there cannot be a Bylaw amendment in 1976, the adoption of definitive policy by the House of Delegates can well be effectuated.

1. *Dues and Assessments* . . . Approved the following recommendation as amended (italics indicate Board amendment):

That the Standing Committee on Revision of Constitution and Bylaws be instructed to amend the Bylaws in conformity with the following: That special *mandatory* assessments may be established at Special Sessions of the House of Delegates should the need arise between Annual Meetings.

Voted to disapprove the following recommendation:

That the Standing Committee on Revision of Constitution and Bylaws be instructed to amend the Bylaws in conformity with the following:

That the Board of Trustees should have the authority to recommend an emergency special assessment, with the following stipulations:

(a) That notice be sent to component medical societies explaining the need for the special assessment.

(b) That component medical societies be requested to hold special meetings to discuss the assessment.

(c) That notice be sent to each member of the Society, with an appropriate explanation and return ballot, to be completed and returned within 60 days.

(d) That a two-thirds affirmative vote of the returned ballots would authorize the emergency assessment.

Note: Current Bylaws provide that dues and/or assessments must be established at an annual meeting. Such provision can create a practical operating difficulty as in the case of the current program concerning professional liability. The Committee on Long Range Planning strongly feels (a) that the Bylaws should be amended so that assessments may be established by a special session of the House of Delegates, (b) that the Board of Trustees should have the authority to recommend an emergency special assessment with appropriate stipulations, and (c) that it is important that the members of the Society become completely aware of the need for any such assessment and have the opportunity fully to discuss the issue at the local level.

2. *Special Meetings of the House of Delegates* . . . Approved as amended the following recommendations:

a. That the Board of Trustees, the House of Delegates, *or a resolution of five component societies in due quorum assembled* shall have the authority to call a special meeting of the House of Delegates at such place and such time as they see fit, provided that at least *45* days' notice is given to the membership. (italics indicate Board amendments)

b. That the agenda of the House of Delegates should be restricted to those items of business that are submitted in writing by the House of Delegates, the Board of Trustees, or by a component society at least 30 days prior to the meeting. Other items which may be brought up may not be considered unless approved by the House as the first item of business

c. That the Standing Committee on Revision of Constitution and Bylaws be requested to make the appropriate Bylaw amendment.

3. *Conflict of Interest* . . . Voted to disapprove the following recommendations:

a. No member of MSNJ may serve on a state agency regulating the practice of medicine and surgery while concurrently serving as an Officer, Trustee, or Delegate of this Society.

b. No member of MSNJ may serve on the board of trustees of a medical service plan while concurrently serving as an Officer, Trustee, or Delegate of this Society.

c. No member of MSNJ may serve as a full-time employee of any governmental health service program while concurrently serving as an Officer, Trustee, or Delegate of this Society.

4. *Medical-Surgical Plan Board of Trustees Nominations* . . . Approved the following recommendation:

That the House of Delegates take no action on any request for endorsement of nominations to the Medical-Surgical Plan Board of Trustees.

State Board Rule on Major and Minor Surgery . . . Received as informative the following proposed rule on major and minor surgery as published in the New Jersey Law Journal (1/8/76).

Subchapter 7. Surgery

13:35-7.1 Major and minor surgery
(a) Major operations are those surgical procedures with an unusual hazard to the life, health and welfare of a patient. Major surgical procedures shall include operations involving the opening of the abdominal cavity or the thoracic cavity, the spinal and central nervous systems and major operations on the neck and the extremities.

(b) In accordance with the provisions of the Medical Practice Act, N.J.S.A. 45:9-1 et seq., major surgical procedures shall only be performed by a duly qualified surgeon with a duly qualified assisting physician, or a duly qualified surgical resident in a training program approved by the Educational Council of the American Medical Association or the American Osteopathic Association, except in matters of dire emergency.

(c) A duly qualified surgeon, duly qualified assisting physician, and duly qualified resident shall be determined by the hospital credentials committee in conjunction with the chairman or chief of the appropriate department or division.

(d) Failure to comply with this rule may subject the physician to suspension or revocation of his license to practice medicine and surgery in this State, pursuant to N.J.S.A. 45:9-16(g), and/or may subject any other person, association, corporation or institution to the sanctions and remedies set forth in N.J.S.A. 45:9-22, N.J.S.A. 45:9-26, and N.J.S.A. 45:9-27.1.

Note: The Board of Medical Examiners has agreed to hold in abeyance final action on the proposed rule, pending receipt of recommendations from MSNJ's Ad Hoc Committee on Surgical Assistants.

Eighth AMA Delegate and Alternate . . . Agreed to elect (at this time) by a majority of those present an AMA delegate and alternate so that their names can be submitted to the AMA prior to the AMA Convention in June. (Because of increased membership in the AMA from New Jersey, MSNJ is now entitled to eight delegates and eight alternate delegates.) Nominated for delegate were Frederick W. Durham, M.D., Karl T. Franzoni, M.D., James A. Rogers, M.D., and James S. Todd, M.D. Dr. Todd was elected on the second ballot. Nominated for alternate delegate were James A. Rogers, M.D. and Howard D. Slobodien, M.D. Dr. Slobodien was elected on the first ballot.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Governor Byrne's proposed Fiscal Year 1977 budget is disquieting to virtually every branch of state and local government, and is especially so to higher education in New Jersey. I am confident that our institutions will survive the impending crisis, difficult as it will be, but to suggest that it will not leave its mark would be pollyanna-ish, indeed. To expect a turnabout that would restore even this year's level of activity is to close one's eyes to the hard realities.

As a case in point of interest to medical professionals, let me share with you the outlook for the College of Medicine and Dentistry of New Jersey. The tables of the Governor's budget message show it in several ways. For example:

"Total Appropriation — College of Medicine and Dentistry of New Jersey. 1976 Adjusted Appropriation, $41,760,319. Year Ending June 30, 1977 — Requested, $49,679,216. Year Ending June 30, 1977 — Recommended, $35,772,000." The difference between the request and the recommendation,

about $14-million, or 28 percent. The difference between this year's appropriation and the recommendation for next year, $6-million, off 14 percent. (The request was that of the Department of Higher Education on CMDNJ's behalf. The recommendation, of course, is the Governor's).

These figures tell only part of the story, for they are not CMDNJ's total annual budget — just the State's share of it, excluding funding for our two Community Mental Health Centers. The College's FY 1976 gross operating expense budget is $86,647,077, the balance coming from hospital revenues, tuition fees, and other sources, such as grants from governmental agencies and private foundations. We had projected a FY 1977 budget of $102,431,741. The budget message submitted to the Legislature gave this item as $94,425,503 (including the mental health centers).

A full understanding of the magnitude of the budget problem requires digging behind the pages of the message's fine print. For example, the Governor projected that our Newark hospital, the CMDNJ-Martland Medical Center, would generate about $1.5-million more in Medicaid revenue next year than we expect it to produce this year — but the State is also proposing reductions in Medicaid payments. If, in effect, the increase in Medicaid-eligible patients is offset by reductions in Medicaid per diems, the College will face an additional $1.5-million in cuts in operating expenses in order to live within the $6-million cut in State appropriations.

The conditions under which CMDNJ operates Martland Hospital as a teaching hospital for CMDNJ-New Jersey Medical School require us to serve the local community also. It provides service to all who come there, whether or not there is payment, and up to now the State has made up any deficit. If the State does not continue to do so, the money can come only from one other source — our teaching programs.

Consider, too, the plight of our new Newark campus, built with Federal and State funds and, in the case of the new teaching hospital, with private (bondholders') money. When completed, the campus will have cost $189 million or more. Four of the buildings — our dental school, library, mental health center, and central power plant — are open and functioning. The 486-bed hospital won't be ready until 1978 at the earliest. The block-wide, nine-level basic-science building, the central teaching facility, is scheduled for occupancy later this year. We may not be able to open it. Maintenance of such a major facility is hardly comparable to that of the "interims" across the street that now house our CMDNJ-New Jersey Medical School and CMDNJ-Graduate School of Biomedical Sciences. The $2-million of additional expense which would be incurred if the College occupied the basic-science building has not been provided for in the Governor's recommended budget.

That building in Newark even has a bearing on CMDNJ's South Jersey Medical Education Program, because the program envisions admitting students whose basic-science years will be spent in Newark or at CMDNJ-Rutgers Medical School, in Piscataway. Regrettably the South Jersey program faces further delay, although the need for it is undeniable and the mandate to undertake it next September is in the record. The problem is that the State Legislature and the Governor have mandated but they have not funded the programs that will bring it to reality.

The Department of Higher Education recommended a $599,000 appropriation for FY 1977 to begin the program next September, but the proposed budget allocates only $41,000, barely enough to keep our planning office open in Camden for another year. Beyond that, a hoped-for FY 1976 supplemental appropriation to permit hiring a dean and giving him a staff and eventually a faculty, to plan a curriculum, to sign contracts with affiliate hospitals, and to approach accrediting agencies did not come through. All this had to be done before the first student could be admitted, with the understanding that annual costs would increase as the program grew toward its targeted goals.

CMDNJ's own Board of Trustees officially noted in February that SJMEP could not be mounted in September 1976, but it specifically directed that efforts continue to implement "programs which will admit students in September 1977, in medicine and osteopathy, subject to the approval of appropriate ac-

crediting agencies and the availability of funds from the State." To undertake SJMEP without a commitment of continued support from the State would be a disservice to the faculty who may be hired, to the students who would be admitted, and to the people of the seven South Jersey counties who have long envisioned the program as the answer to the lack of medical service that has been a problem for some areas of South Jersey for many years.

Meanwhile, we are in the process of applying to the Federal government for about $1 million in funds available over a four-year period for the osteopathic portion of the South Jersey program. But even with this money, and a possible tuition increase to $5,000 a year, the State would have to provide approximately $130,000 for the first year, before students are admitted, and $775,000 the year after that, for the osteopathic segment, assuming the use of the basic-science building in Newark and assuming that other teaching programs are not so weakened by the budget cuts as to make any effort for South Jersey unsustainable.

The effect of the reduction in appropriations on the College's operating expense budget will be compounded if the College fails to increase its tuition from the current level of $1,750 for residents, and $3,000 for non-residents. The new tuition figure projected by the Governor is $5,000 a year per student. Such an increase has many ramifications that our Board is studying before it makes its recommendation to the Department of Higher Education. The spread in revenue between the current and the proposed tuition rates is $3.5 million.

The budget proposed by the Governor appears to leave CMDNJ with an income shortfall of about $2.3 million. Steps will have to be taken to close the gap, but it is doubtful that it can be closed completely without layoffs, program cutbacks, and mothballing of new programs.

Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

Status Report

Your Foundation continues to represent the practicing physicians of New Jersey in all its functions. Since the last meeting of the House of Delegates many factors have affected our role:

1. The controversial Utilization Regulations for Medicare and Medicaid (November 1974) produced an increased demand for explanations of the techniques of hospital review. As a result of the litigation by AMA, these regulations were withdrawn by the Secretary of HEW, and the Department has gone back to the drawing board. The stimulus of these rules was not without benefit, since many professionals became aware of the need to update their utilization techniques. The experience gained by demonstrators and audiences alike was beneficial to both. It also brought many agencies together — physicians, hospital administrators, utilization review personnel, medical records people, Medicare and Medicaid agencies, fiscal intermediaries, and the State Department of Health. While each group has its own turf to protect, we all learned something.

2. The effect of the budget on PSRO development — HEW asked for $50 million dollars; Congress appropriated $47.6 million, but the bill was vetoed. Congress overrode the veto on January 28, 1976, and restored the $47.6 million. There are now 65 Conditional PSROs in the nation (of 203 areas). One (Passaic Valley) is in operation in New Jersey. Two others (Area I, Morris, Sussex, and Warren, and Area IV, Essex) are ready to perform as Conditionals as soon as funds are awarded. Central New Jersey and Southern New Jersey PSROs are well organized as Planning PSROs, and three areas (Bergen, Hudson, and Union) are without any

Annual Meeting Housing Application — Page 366

government funds. We have bombarded HEW, Congress, the Governor's office, and others, requesting that at least two more Conditionals (I and IV) be started. Further delays will severely hamper a legitimate test of physician-conducted peer review in this State. Not to allow such a trial, after the efforts of so many physicians in organizing to meet the challenge, will only mean that most of them have wasted their time.

3. The beginning activity in this State under P.L. 93-641, the Health Planning and Resources Development Act, calls for an exchange of information to coordinate activities of the Health Services Agencies (HSAs) and the PSROs. There are mutual tasks and plans specified in the law, and HSAs are being reminded of their responsibilities. A viable physician-run PSRO will be of great importance to physicians when the HSAs begin their work; if *non*-physician PSROs work with the HSAs, we will be at a considerable disadvantage. The "deadline" for appointing non-physician PSROs, originally January 1, 1976, has been extended to January 1, 1978. There is also a New Jersey Health Planning law, which may turn out to be more stringent than the Federal act. NJFHCE has been participating in some of the planning, particularly to do the quality assurance portion of an experimental study of prospective rate-setting arrangements. The success (or feasibility) of this project is unclear at this time, but our point is that we are present in these efforts, giving the doctors' point of view, and the Department of Health is well aware of our presence.

4. The private insurance industry has shown interest in the type of review to be done under PSRO. NJFHCE has engaged in discussion with representatives of the Health Insurance Association of America, and its New Jersey members.

5. A Committee on Claims Review has been exploring the possibility of the Foundation establishing a role in this area.

6. A Committee on HMO-IPA has been keeping abreast of the developments in this area in our State. The Individual Physicians' Association seems to be worthy of consideration as an alternative delivery system, which preserves the fee-for-service basis of practice.

7. As a result of the work of our consortium, a proposal on a statewide data system was developed. Many bids have been received, and are being analyzed.

8. Attention must soon turn to the sites of long-term care. Skilled nursing facilities, specialized hospitals, and so on, will need plans developed for their part in the review of quality care.

9. Ancillary services and "non-physician providers" require attention. Meetings are scheduled in the near future with pharmacy and occupational therapy groups. These are examples of many such organizations which are seeking their niche in the developing programs.

10. Our personnel are active beyond the State borders. We participate in meetings and seminars on many levels in other states. We are active in AAPSRO (American Association of Professional Standards Review Organizations) and AAFMC (American Association of Foundations for Medical Care), with representation on several committees of these organizations. Our report on the meetings of the National Professional Standards Review Council in Washington are published by AAPSRO and distributed nationwide. This Foundation and its personnel are well known across the country, and we can report, immodestly, that we have a good reputation.

We have accomplished a good deal in a short time. There is a great deal of work to be done in the next year. As the PSROs move into place there will be much controversy and confusion. It will take time to "calibrate the machine" as everyone concerned begins to become familiar with the system. Not too much should be expected in the beginning. Everyone needs to realize this and be reminded of it. There will be many "bugs" to be worked out during the "shakedown" period. This is why there should be more than one PSRO area working as Conditional. Comparisons will be very helpful. Physician "go-betweens" will be needed to help minimize the conflicts that will surely result from hastily-drawn conclusions. Questions of authority relating to "turf" protection are inevitable. The Foundation is in the best position to mediate these situations. This is why we feel

that the Foundation should be closely allied with the State Professional Standards Review Council as it develops.

We need the continuing endorsement and support of MSNJ. We sincerely believe that we need each other in these perilous times. At some meetings with physicians we are regarded as obsequious servants of the Government — we assure you, we are not. Most of the other groups we meet with regard us as representatives of doctors, poking our noses into their planning — which we *are*. Many of the "planners" would rather not talk to physicians at all. We need *all* doctors to keep informed and to make their opinions known — component societies, MSNJ, NJAOPS, specialty societies, and so on.

Professional Liability

Medical Review and Advisory Committees

Many members are not conversant with the extent of participation by their counterparts in The Medical Society of New Jersey's liability program. An example of this is one of the most important elements in the program — the peer review of claims or suits submitted against insured members. We are referring to the contributions made by medical review and advisory committees. These committees were created in 1960 to promote better loss control. Under the rules of the Medical Society's program, provisions were made for establishment of committees at the county level, consisting of from nine to twenty-four members, according to the number of physicians in the county. A chairman is appointed to administrate each committee and efforts are made to include representatives from the majority of medical and surgical specialties. As vacancies arise, the president of the component society submits nominations to the society's official broker so that new appointments can be made, assuring adequate representation and continuation of activities. While reference has been made to "county" medical review and advisory committees, it is essential to recognize they are actually *not* a committee of a component society. Rather, they are established to serve the attorney(s) assigned to the committee; the decisions reached are his work product and, as such, any communications are privileged.

The committee's primary function is to review and to evaluate the medical aspects of claims and suits for the purpose of determining the facts and to make recommendations as to settlement or defense. Incidentally, only claims or suits valued in excess of $1,000 are reviewed. The committee may also be called upon to review questions regarding the applicability of insurance coverage or other special problems.

The mechanics involved in committee activity encompass the following:

1. Upon the reporting of a claim or suit, the insurance carrier is required promptly to obtain all pertinent information and to complete his investigation.

2. Subsequently, a complete copy of the file is forwarded to that member of the committee appointed by the county chairman as case chairman. Usually these case chairmen are members of the same specialty as the physician against whom the claim is made. Arrangements may be made for a physician to be appointed from outside of the committee, particularly where the specialty of the defendant is not represented by an existing member. In the event of a suit, the county in which the action is brought will be responsible for review even though it may not be the county of domicile of the defending physician.

3. Following an in-depth evaluation of the case by the case chairman, including obtaining any additional information which may be needed, the matter is scheduled for review by the entire committee. Meetings are held on a monthly basis, or as warranted by the volume of cases to be reviewed.

4. Under direction of the assigned attorney, the case chairman presents the pertinent facts of the case and answers questions submitted by committee members. He also shall give his opinion relative to any deviation from accepted practice.

5. *Prior to a vote of the committee, the attorney assigned to the case, if necessary, will present technical questions or legal problems which may complicate future handling.*

6. *Assuming no problems exist to delay final determination, the committee votes to:* (a) recommend settlement because of deviation from accepted standards, or (b) by affirmative vote of 75 percent or more of those present, to defend.

Recognition should be given to the fact that the insurance company participating in the Medical Society program today has agreed to follow the findings of medical review committees. Under the agreement, the company is precluded from effecting settlement of any amount for a claim voted defensible. Conversely, if a claim is

deemed non-defensible, the company is permitted to effect a settlement and the cooperation of the defending physician in providing an unqualified written consent to settlement is expected.

The quality of decisions by medical review committees has been outstanding, particularly in connection with claims or suits deemed defensible, as evidenced by jury decisions in subsequent trials in which it was determined the physician(s) involved should be defended. As a precautionary measure, the program also provides that if, during trial, the defense is damaged by unexpected adverse testimony or other conditions, the attorney may settle a case contrary to committee decision with consent of the insurance carrier and physician. The invoking of this provision is extremely rare.

A claim or suit deemed not defensible by committee action is considered a "chargeable" claim under the surcharge provisions of the Medical Society program. While one claim deemed non-defensible does not subject a physician to payment of additional premium, if other adverse claim experience exists such conditions could arise.

There have been many benefits from the meetings. Physicians who have participated have found them to be candid, in-depth evaluations of the factual situations surrounding the claims or suits submitted to the company, with full consideration of each defendant(s) interests. On a broader base some changes also have been made in medical procedures or practices to aid in reducing the incidence of malpractice. The assigned attorney, and the insurance carrier achieve a greater understanding of each case that is reviewed and the problems involved.

There has been a substantial increase in activities by these committees. From an annual average of 40, there was an increase in 1975 to 67 meetings. During this time more than 400 claims and suits were reviewed, the majority of which were deemed defensible. In view of the increase in the number of claims and suits currently being submitted, medical review committees will continue to be active at the same or even higher levels.

It is widely stated that imitation is the sincerest form of flattery. If there is any truth to this statement, the Medical Society should be pleased that another major underwriter of professional liability insurance has incorporated similar review procedures in its program. The plan is organized and operative in one state, and is being expanded to five additional states to achieve some of the same benefits that the New Jersey program has been providing since 1960.

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 102, Hopewell, New Jersey 08525.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long term therapy.

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Scientific/Informational Exhibits

1976 Annual Meeting — June 5–7

(The following Scientific and Informational Exhibits will be on display at the forthcoming Annual Meeting. Narrative descriptions of each will appear in the May issue of JMSNJ.)

Scientific

Anterior Spine Fusion **S-101**

Andrew Corollo, M.D., John McKeon, M.D., and Robert Fernond, M.D., Children's Hospital, Newark

Pleural Effusion Cytology **S-102**

Barry R. Aikey, M.D., William V. Harrer, M.D., Joseph W. Sakolowski, Jr., M.D., and Francisco Enriquez, M.D., Our Lady of Lourdes Hospital, Camden

Acute Radiation Syndrome in Man **S-103**

James A. Hogan, M.D. and Louis Sonfilippo, M.D., Saint Barnabas Medical Center, Livingston

"When Primary Prevention Fails" — Project Newark — Services to Children and Drug Addicts in a Deprived Population **S-104**

Donald B. Lauria, M.D., CMDNJ — New Jersey Medical School, Newark

The Art and Science of the Prevention of Disease — Ten Simple Ways to Prevent Disability and Disease **S-105**

Donald B. Laurio, M.D., CMDNJ — New Jersey Medical School, Newark

Xeroradiographic Diagnosis of Gynecomastia **S-106**

Daniel S. Cukier, M.D., Hackensack

Lead Poisoning **S-107**

Leah Ziskin, M.D. and Edmond D. Duffy, Jr., M.P.H., New Jersey State Department of Health, Trenton

Control of Cancer of the Colon and Rectum **S-108**

American Cancer Society, New Jersey Division, Inc., Union

Isotopic Evaluation of Myocardial Function **S-109**

P. A. German, M.D., Vladir Maronhoo, M.D., Se Do Cha, M.D., Alden Gooch, M.D., Javier Fernandez, M.D., Gerald Lemole, M.D., and Dryden Morse, M.D., Deborah Heart and Lung Center, Browns Mills

Echocardiography on the Diagnosis of Congenital and Acquired Heart Disease **S-110**

S. Yang, M.D., M. Calumbi, M.D., J. W. Eldredge, M.D., H. Goldberg, M.D., and D. Morse, M.D., Deborah Heart and Lung Center, Browns Mills

Clinical Features of Floppy Mitral and Tricuspid Valves **S-111**

Alden Gooch, M.D., Sing Song Yang, M.D., Vladir Maronhoo, M.D. and Dryden Morse, M.D., Deborah Heart and Lung Center, Browns Mills

Automotive Baby Care — A Safe Ride for Every Child **S-112**

Arnold Constad, M.D. and Seymour Charles, M.D., CMDNJ — New Jersey Medical School, Newark; and Saint Barnabas Medical Center, Livingston

Cerebral Transaxial Tomography **S-113**

Ira S. Ross, M.D., CATEC (Computerized Axial Tomography of Essex County) with MSNJ's Committee on Neurological and Related Disorders

Problem Oriented Stoma Care **S-114**

Dove B. Swerdlow, M.D., Patricia Martin, R.N., and Gertrude Burns, R.N., Stoma Care Center, Montclair

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Informational

New Jersey Foundation for Health Care Evaluation **I-201**

Trenton

Medical Education in New Jersey **I-202**

CMDNJ — New Jersey Medical School, Newark; and CMDNJ — Rutgers Medical School, Piscataway

Venereal Diseases **I-203**

Venereal Disease Service Organization, East Orange

New Jersey Affiliate, American Diabetes Association **I-204**

Hackensack

Drug Abuse in New Jersey **I-205**

MSNJ's Committee on Drug Abuse, Trenton

Society for the Relief of Widows and Orphans of Medical Men of New Jersey **I-206**

Hopewell

Academy of Medicine of New Jersey **I-207**

Union

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*Please note unstable angina patients may be refractory to all long-acting nitrates.

INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset of action is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrates, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilatation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilatation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

SUPPLIED: 10 mg chewable tablets, bottle of 100. Also 5, 10 and 15 mg scored tablets in bottles of 100. 10 mg scored tablets also supplied in bottle of 1,000.

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1. Russek HI. AM J M Sc 239:478, 1960

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Effective prophylaxis against attacks; increases exercise tolerance. Serious side effects have not been reported in 20 years' clinical use.

Cardilate can save patients money; is less expensive than many popular long-acting nitrates. 20% to 30% savings not uncommon...also helps reduce need for nitroglycerin.

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PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

DERMATOLOGY — Sidney A. Hochman, M.D., 120-27E Alcott Place, Bronx, New York 10475. Einstein 1968. Board certified. Partnership or group. Available.

FAMILY PRACTICE — Renato T. Diaz, M.D., 21 Walnut Rd., Apt. 11-2A, Glen Cove, New York 11542. University of the East (Philippines) 1966. Board eligible. Group. Available July 1976.

Robert J. Baird, M.D., 2702 Fruitville Pike, Lancaster, Pennsylvania 17601. Temple 1973. Group or partnership, semi-rural, central New Jersey preferred. Available August 1976.

M. B. S. DeSilva, M.D., 25 West Wellsboro Street, Mansfield, Pennsylvania 16933. Medical College, Colombo (Ceylon) 1966. Board certified. Group or full-time emergency room. Available July 1976.

INTERNAL MEDICINE — Martin W. Isenman, M.D., 758 Elmwood Terrace, Rochester, New York 14620. NYU (Downstate) 1975. Subspecialty, rheumatology. Board certified. Group or partnership. Available July 1976.

Anderson Tsai, M.D., 121 Congress St., Brooklyn 11201. Kaohsiung (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976 (212-237-1338).

Stephen W. Borrus, M.D., 7118 Bonita Drive, Miami Beach, Florida 33141. CMDNJ 1973. Board eligible. Group or partnership. Available July 1976.

Nilesh Rana, M.D., 230 Fairhaven Drive, Jericho, New York 11753. T.N. Medical (India) 1969. Subspecialty, gastroenterology. Board eligible. Group, partnership, hospital. Available July 1976.

Jen-Shong Lin, M.D., 355 Bard Ave., Apt. 6-J, Staten Island, New York 10310. Taipei (Taiwan) 1968. Board eligible. Group, partnership, hospital based. Available July 1976.

Robert J. Rubano, M.D., 3102 Glencairn Ave., Toledo, Ohio 43614. CMDNJ 1970. Board eligible. Group or partnership. Available July 1976.

Roberto R. Diaz, M.D., 355 Bard Ave., Staten Island, New York. Santo Tomas (Philippines) 1970. Board eligible. Solo or associate. Available July 1976.

NEUROLOGY — Anthony C. Breuer, M.D., 83 Craftsland Rd., Brookline, Mass. 02167. Harvard 1970. Board eligible. Group, partnership, hospital. Available July 1977.

OBSTETRICS AND GYNECOLOGY — Thomas P. McCormack, M.D., 33 Highland St., Apt. 5-F, New Britain, Conn. 06052. Georgetown 1970. Board eligible. Group or partnership. Available July 1976.

Min-Chung Lin, M.D., 30-33 72nd Street, Jackson Heights, New York 11370. Taipei (Taiwan) 1970. Board eligible. Partnership or group. Available July 1976.

Alfredo Cola, M.D., 1001 Dorchester Road, Apt. 1, Brooklyn, New York 11218. Uruguay Medical 1970. Board eligible. Partnership or association. Available July 1976.

Ching Wu Hou, M.D., 43-135th Street, Apt. 8-P, Jamaica, New York 11418. China Medical (Taiwan) 1969. Board eligible. Solo, group, or partnership. Available July 1976.

Jiunn-Bor Hwang, M.D., 3990 Bronx Boulevard, Apt. 6-J, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Group, partnership, solo. Available July 1976.

Florencia C. Lopez, M.D., 355 Bard Avenue, Apt. LC, Staten Island, New York 10310. Santo Tomas (Philippines) 1960. Board eligible. Group, partnership, solo. Available July 1976.

Judith A. Stavis, M.D., 315 Eighth Street, Palisades Park 07650. Cornell 1972. Board eligible. Group, clinic. Available July 1976.

Hoon Yoo, M.D., 950 49th Stret, Apt. 1-A, Brooklyn, New York 11219. Catholic Medical School, Korea. Board eligible. Solo, partnership, group, or hospital. Available July 1976.

ONCOLOGY — Abdul G. Mundia, M.D., 73-17 260th Street, Glen Oaks, New York 11004. L.T. Medical, Bombay (India) 1970. Board eligible. Solo, group, or hospital based. Available July 1976.

OTOLARYNGOLOGY — Tay B. Lee, M.D., 5601 Boulevard East, West New York, New Jersey 07093. Seoul University (Korea) 1962. Board certified. Partnership, group, or solo. Available.

PATHOLOGY — Raafat Ahmad, M.D., 1017 Lafayette Drive, Yardley, Pennsylvania 19067. F.J. Medical (Pakistan) 1964. Board certified. Group, partnership, or hospital-based. Available July 1976.

PEDIATRICS — Gianmaria Minervini, M.D., 908 Hudson Street, Hoboken 07030. NYU 1973. Board eligible. Group, partnership, clinic. Available July 1976.

Dong H. Kim, M.D., 59 Van Horn Street, Demarest 07627. Catholic (Korea) 1960. Board certified. Solo, partnership, group. Available July 1976.

Michael B. Andorsky, M.D., 145 West 71st Street, New York 10023. Vermont 1970. Board certified. Group, partnership, solo. Available July 1976.

G. S. Saluja, M.D., 43-44 Kissena Blvd., Apt. 6E, Flushing, New York 11355. India Institute of Medical Science 1969. Subspecialty, pediatric hematology. Board certified. Group, partnership, solo, hospital. Available July 1976.

Yong-Kwon Chun, M.D., Station H, P.O. Box 95, Central Islip, New York 11722. Pusan (Korea) 1965. Group or partnership. Available July 1976.

Vasudev Gabbur, M.D., 97-15 Horace Harding Expressway, Apt. 18-M, Corona, New York 11368. Osmania (India) 1963. Board certified. Solo, group, or partnership. Available.

Jose D. Buhain, M.D., 85 Livingston St., Apt. 12-G, Brooklyn, New York 11201. Far Eastern (Philippines) 1967. Board certified. Partnership, solo, group, hospital. Available July 1976.

M. H. Ziai, M.D., 188 Hillside Avenue, Cresskill, New Jersey 07626. Teheran 1960. Board certified. Partnership or solo. Available July 1976.

Wen-Shiang Hong, M.D., 89-30 134th Street, Jamaica, New York 11418. Taipei (Taiwan) 1971. Board eligible. Partnership or solo. Available July 1976.

Jaw-Tang Chen, M.D., 3990 Bronx Boulevard, Apt. LK, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Solo, partnership, or group. Available.

PSYCHIATRY — Lauretta A. Blake, M.D., Dina Manor Apts., 1320 H. Street, Belmar, New Jersey 07719. New York Medical 1952. Board eligible. Partnership or group, hospital or institution. Available March 1976.

Reza Feiz, M.D., 1199 Whitney Avenue, Apt. 310, Hamden, Connecticut 06517. Isfahan (Iran) 1967. Full or part-time. Available July 1976

RHEUMATOLOGY — Robert S. Katz, M.D., 102 West 39th Street, Apt. 3A, Baltimore, Maryland 21210. Maryland 1970. Board certified (internal medicine). Group, hospital, association. Available July 1976.

SURGERY — Sarat K. Dash, M.D., 410 Prospect Street, Apt. 3B, East Orange 07017. S.C.B. Medical (India) 1966. Subspecialty, vascular surgery. Board eligible. Group, partnership, solo. Available July 1976.

Sham Bajina, M.D., 2200 Benjamin Franklin Parkway, Suite 1501, Philadelphia 19130. Subspecialty, peripheral vascular surgery. Board eligible. Group, partnership, solo, institution. Available.

Omkar N. Tiku, M.D., 585 Bloomfield Ave., West Caldwell 07006. Calcutta (India) 1962. Board certified. Partnership, solo. Available.

Ashwin I. Mehta, M.D., 702-B James Street, Bridgeport, West Virginia 26330. Baroda (India) 1960. Board certified. Group or partnership. Available July 1976.

Ahmad H. Shatila, M.D., 16331 Heather Lane, Middleburg Heights, Ohio 44130. American University (Beirut) 1970. Board eligible. Subspecialty surgical oncology. Group, solo, partnership, or academic. Available July 1976.

Anuershetru Siddanna, M.D., 173 Pleasant Street, Melrose, Massachusetts 02176. Karanatak Medical School (India) 1965. Board eligible. Group, partnership, salaried position, others. Available May 1976.

Vicente P. Grana, M.D., 2430-C 8th Street, Fort Lee 07024. Far Eastern (Manila) 1966. Board eligible. Subspecialty thoracic surgery. Solo, partnership, group. Available July 1976.

UROLOGY — Mark J. Brodkey, M.D., 605 Elysian Fields Ave., New Orleans, Louisiana 70117. John Hopkins 1968. Board eligible. Partnership or group. Available July 1976.

P. Satpathy, M.D., 6529 Landover Road, Apt. 303, Cheverly, Maryland 20785. (Name of school not given) 1965. Board eligible. Solo, if possible. Available July 1976.

1976 Annual Meeting Highlights

- **Governor's Conference on Prevention Adult Medicine**
- **Golden Merit Awards**
- **Trauma Oration — American College of Surgeons**
- **AMA Issues Workshop**
- **Scientific Sessions**
- **Motion Picture Theater**
- **House of Delegates**
- **JEMPAC Breakfast**
- **Exhibits**
  - **Informational**
  - **Scientific**
  - **Technical**
- **Social Events**
  - **Convention Revelry**
  - **Inaugural Reception and Dinner**
  - **Dinner-Dance**
  - **Entertainment**
  - **Receptions**
  - **Luncheons**

LETTERS TO THE JOURNAL

Bibliography on Women in Medicine

February 2, 1976

Dear Sir:

The Medical College of Pennsylvania is in the process of compiling a comprehensive bibliography of literature about women physicians. We have received a Publication Grant from the National Library of Medicine (NIH Grant LM 02332) to produce this bibliography which is being developed as a special project of our College Library in cooperation with our Center for Women in Medicine. The bibliography will, upon completion, be published by Scarecrow Press, Inc., Metuchen, New Jersey.

Our conception is that the bibliography should include all identifiable books, periodical articles, reports, and works of scholarly value on all aspects of the subject of women physicians, including their education, practice patterns, and roles as women, and that both historical and contemporary publications should be included. Following that plan, it is roughly estimated that the bibliography will contain 3,000 references. We hope to have it completed in approximately 12 months. The references will be annotated with descriptive statements.

In addition to citations for books, periodical articles, reports, and so on, we are planning to include in the bibliography a section on *collections* of materials about women physicians, either specific women or women physicians in general. We are contacting you at this time in hopes that you will be aware of such collections, or material, within your state.

If you can offer any information, we would be most appreciative. As we are not contacting individually the county medical societies within your state, we would certainly appreciate it if you would relay our request for information to these various medical societies.

Thank you in advance for your time and consideration in this matter.

(Signed) Sandra L. Chaff, Bibliographer-Editor
Florence A. Moore Library of Medicine
Medical College of Pennsylvania

Editor's Note: If the reader can offer any information please send it to Ms. Chaff at the College (3300 Henry Avenue, Philadelphia 19129).

One Snake Proper*

February 4, 1976

Dear Doctor Krosnick,

I read with great interest the January 1976 issue of *The Journal* and wish to commend you and the various authors on the interesting historical aspects of medicine in our state. I must confess, however, wincing at the cover piece of Mr. William Arthur Smith. Although pleasing to the eye, I found it somewhat dismaying to my sense of history and tradition. I refer to the symbol for Medicine used by the artist: the winged staff of Mercury entwined by two serpents rather than the single staff of Aesculapius entwined by a single serpent. The former, of course, is the messenger god and more appropriate as a representation of commerce and should not be used in place of the true symbol of medicine as indicated above.

This error is repeated frequently among paramedical groups and non-professionals. It was just unfortunate that an otherwise excellent and scholarly issue should have been marred by this defect in historical accuracy.

(Signed) Allen B. Weisse, M.D.

*(See editorial comment, page 292, this issue)

June 4-8, 1976
MSNJ Annual Meeting

ANNOUNCEMENTS

Pulmonary Disease Series

Following is a list of the monthly lectures in pulmonary diseases to be sponsored jointly by the Veterans Administration Hospital in East Orange and the New Jersey Medical School in Newark:

Apr. 21—Categories of Pulmonary Disease Measured by Functional and Laboratory Data
May 12—Rehabilitation of Chronic Pulmonary Patient

All sessions will be held at 11:30 a.m. in the third-floor auditorium of the East Orange Veterans Administration Hospital. For additional information, please communicate with L. Fred Ayvazian, M.D., Chief of the Pulmonary Disease Section at the hospital.

Surgical Lectures — Rutgers Medical School

The Rutgers Medical School, CMDNJ, Department of Surgery, is sponsoring the following additional programs in its series of Visiting Professor Lectures. The sessions have been approved for one credit-hour each in Category I of the AMA Physician's Recognition Award.

May 4 *Management of Esophageal Carcinoma*
Ward Griffen, M.D., Professor and Chairman of Surgery
University of Kentucky Medical School

June 1 *Surgical Significance of Benign Colorectal Polyps*
Robert E. Condon, M.D., Professor of Surgery
Medical College of Wisconsin

All lectures will be held at 5 p.m. in the main auditorium of Rutgers Medical School, University Heights, Piscataway. For further information, please communicate with John H. Landor, M.D., Professor and Chief of the Division of General Surgery at the College.

Malpractice Litigation Symposium

The Academy of Medicine of New Jersey and The Medical Society of New Jersey are cooperating in the sponsorship of a symposium on "Malpractice Litigation: The Physician's Growing Dilemma." The half-day meeting will be held on Wednesday, May 5th at Rutgers Medical School auditorium in Piscataway. Registration is 12:30 p.m. and it is anticipated that the meeting will adjourn by 5 p.m. The following topics will be considered:

1. Avoidance of a malpractice suit
2. The mechanics — summons and complaint, depositions and interrogatories, expert witness, and malpractice trial
3. Use of personal attorneys
4. The Medical Review Program

The symposium is accredited in Category I of the AMA Physician's Recognition Award. For additional information, and to register, please communicate with the Executive Office of the Academy of Medicine, 2424 Morris Avenue, Union 07083 — (201) 687-8780.

Central New Jersey Chest Conferences

The New Jersey Thoracic Society and the Delaware-Raritan Lung Association are co-sponsors of the following Central New Jersey Regional Chest Conference:

May 6 — Hunterdon Medical Center, Flemington
Newer Forms of Asthma Therapy
Theodore Weinstein, M.D., Hunterdon Medical Center

The session convenes at 4 p.m. and runs until 6 p.m. Application has been made for two credit hours (each program) in Category I of the AMA Physician's Recognition Award. For information, please communicate with Ms. Hummel, Delaware-Raritan Lung Association, 29 Emmons Drive, Princeton, New Jersey 08540.

Health Care Seminar in Sweden

A seminar for physicians and allied health personnel on physical fitness and health care, sponsored by Concordia University, will be held from June 1 to 11 in Stockholm, Sweden. Among others, subjects presented will include physical fitness, preventive medicine, rehabilita-

tive medicine, medical research as it pertains to health and fitness, socialized medicine, and the educational system for medical and allied health professions. There will be daily lectures and discussions and tours and analysis sessions of Swedish medical and fitness facilities. Opportunities for sight-seeing, including a cruise through the scenic islands in the Baltic, will be available. The point of departure and return is Montreal. Application has been made for 20 credit hours in Category I of the AMA Physician's Recognition Award. Registration is limited. For information concerning costs and an application, please write to Earl Hoerner, M.D., Director, Swedish Study Program, 48 West Northfield Road, Livingston 07039 — (201) 992-0013.

Humanities Seminars for Medical Practitioners

The National Endowment for the Humanities again will support a program of humanities seminars for physicians and other members of the health professions for a month of full-time study of such issues as ethical conflicts, the rights of patients and practitioners, and the purpose and limits of the medical profession and its relation to the community.

Tuition is free and those participating will receive a stipend of $1,200 for expenses, plus a travel reimbursement up to $300. The following sessions have been arranged.

June 1 to 30 — University of Pennsylvania, Philadelphia — Conceptions of health and illness, professional development, the hospital as a social system, medical research, and bioethical issues in contemporary medicine.

Renee C. Fox, Professor of Sociology, University of Pennsylvania (123 McNeil Building CR, Philadelphia 19174)

June 28 to July 23 — Stanford University, Stanford, California — The role of the practitioner in the doctor-patient relationship, the family facing medical crisis, the decision-making ethos of the hospital, and the claims of society at large.

William F. May, Professor of Religious Studies, Indiana University (Sycamore Hall 230, Bloomington, Indiana 47401)

Aug. 9 to Sept 3 — Ohio State University, Columbus, Ohio — Historical forces which have shaped the medical profession and determined the direction of its development.

John C. Burnham, Professor of History and Lecturer in Psychiatry, Ohio State University (230 West 17th Avenue, Columbus, Ohio 43210)

Sept. 13 to Oct. 8 — University of Texas Medical Branch, Galveston — Patient's rights, the right to health care, the basic philosophical and ethical issues that bear on the status of the individual, the nature of justice, and the relationship between the individual and society.

H. Tristram Engelhardt, Jr., Associate Professor of the Philosophy of Medicine in the Institute for Medical Humanities, University of Texas Medical Branch (Galveston, Texas 77550)

Information may be obtained from the individual professors at the addresses indicated. Application deadline for the first two seminars is April 15 and for the others the date is May 13.

Otolaryngologic Assembly

The annual Otolaryngologic Assembly of 1976 will be held October 16 through 22 at the Eye and Ear Infirmary of the University of Illinois Hospital. The Department of Otolaryngology of the medical school is offering a condensed basic and clinical program in current medical and surgical otorhinolaryngologic procedures for practicing otolaryngologists. For information, please write to Otolaryngology, P.O. Box 6998, Chicago 60680.

Course in Laryngology and Bronchoesophagology

The Department of Otolaryngology, Abraham Lincoln School of Medicine, University of Illinois, and the Eye and Ear Infirmary of the University's hospital will conduct a continuing education course in laryngology and bronchoesophagology from November 1 through 6. The program, which is limited to twenty physicians, will be held at the Eye and Ear Infirmary and will include visits to other Chicago hospitals. There will be animal demonstrations, diagnostic and surgical clinics, and didactic lectures. For information, please write to the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago 60612.

Family Practice Certification Examination

October 30 and 31

The next examination for certification by the American Board of Family Practice will be given October 30 and 31, at seven geographically distributed cities throughout the United States. Information may be obtained from Nicholas J. Pisacano, M.D., Executive Director, American Board of Family Practice, University of Kentucky Medical Center, Lexington, Kentucky 40506. Please note that for those wishing to take the examination a completed application must be filed *before June 15, 1976.*

Tay-Sachs Prevention Day

Sunday, May 16 10 a.m. to 4 p.m.

Temple Emanuel
756 East Broad Street
Westfield

Sponsored by: Jewish Federation of Central New Jersey and CMDNJ, New Jersey Medical School, Newark

The testing will be carried out under the direction of Theodore Kushnick, M.D., Professor of Pediatrics and Director of the Division of Human Genetics, CMDNJ, New Jersey Medical School.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

Apr.

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
Weekdays, 12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

12 **Endocrine Conferences**
19 11 a.m. — Elizabeth General Hospital, Elizabeth
26 *(Sponsored by Elizabeth General Hospital and AAFP)*

12 **Distinguished Lectures in Surgery**
19 4-5 p.m. — Martland Hospital Unit, Newark
26 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

13 **Clinical Immunology**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

13 **Diabetes**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

13 **Clinical Pathological Conference**
8 p.m. — Johnson & Johnson, New Brunswick
(Sponsored by Academy of Medicine and New Jersey Dermatological Society)

13 **Tumor Conferences**
20 11-12 noon — Morristown Memorial Hospital
27 *(Sponsored by Morristown Memorial Hospital and Academy of Medicine)*

13 **Topics in Neurosurgery**
20 4-5:00 p.m. — VA Hospital, East Orange
27 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)*

13 **Psychiatric Case Conferences**
20 7:30 a.m. — Trenton Psychiatric Hospital
27 *(Sponsored by Trenton Psychiatric Hospital)*

13 **Topics in Neurotology**
6-10 p.m. — Hackensack Hospital, Hackensack
(Sponsored by Bergen County Society of Otolaryngologists and Academy of Medicine)

13 **Problem Family Case Presentations**
9-11:30 a.m. — Rutgers Medical School, Piscataway
(Sponsored by CMDNJ-Rutgers Medical School and AAFP)

13 **Clinical Endocrinolgy**
8 p.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

14 **Personality Structure of Child Abusers**
6:30-10:30 p.m. — Guido's Restaurant, Hackensack
(Sponsored by North Jersey Psychiatric Society and Academy of Medicine)

14 **Arrhythmias**
21 10-11:30 a.m. — Saddle Brook General Hospital
28 *(Sponsored by Saddle Brook Hospital and Academy of Medicine)*

14 **Medical Aspects of Aging Process**
21 3-5 p.m. — CMDNJ-New Jersey Medical School, Rm.
28 202, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

14 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

14 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

14 **Perinatal Seminars**
21 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
28 *(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)*

14 **Sensory Feedback in Neurological Disorders**
21 **Basic Principles of Behavior Therapy**
28 **Medical Aspects of the Psychiatric Consultation**
9-11 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

14 **Conferences in Endocrinology**
21 3:30-5 p.m. — Location to be announced
28 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

15 **Renal Regulation of Sodium Excretion**
Somerset Hospital, Somerville
(Sponsored by Nephrology Society of New Jersey, N.J. RMP and Academy of Medicine)

15 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

15 **Breast Neoplasias — Part II**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

15 **Topics in Ocology**
22 1:30-2:30 p.m. — Martland Hospital Unit, Newark
29 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

15 **Basic Sciences and Clinical Applications**
22 Burlington County Memorial Hospital, Mt. Holly
29 *(Sponsored by Burlington County Memorial Hospital and AAFP)*

16 **Surgical Management of Ulcerative Colitis**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Fall-Spring Psychiatric Lecture Series**
23 1:30-5 p.m. — Trenton Psychiatric Hospital
30 *(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*

16 **Ophthalmology Series**
23 7:30-9:30 a.m. — United Hospitals of Newark
(Sponsored by Associated Eye Residencies of New Jersey and Academy of Medicine)

17 **Monitoring of the High Risk Patient**
9 a.m. — St. Barnabas Hospital, Livingston
(Sponsored by St. Barnabas Hospital, Department of Surgery)

17 **Advances in Orthopedic Surgery**
24 8:30-11:30 a.m. — CMDNJ-New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

19 **Neurochemistry and Genetics of Mental Illness**
11 a.m.-12 noon — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

19 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

19 **J&J Visiting Professorship Program — Pediatric**
23 **Radiology**
1-5:30 p.m. — Somerset Hospital, Somerville
(Sponsored by Somerset Hospital and AAFP)

20 **Treatment of Depression**
2-4:30 p.m. — Camden County Hospital, Lakeland
(Sponsored by Camden County Hospital and Academy of Medicine)

20 **Common Medical Problems**
8 a.m. — Southern Ocean County Hospital, Manahawkin
(Sponsored by Burlington County Memorial Hospital and AAFP)

20 **Regional Chest Conference**
7:30-9:30 p.m. — Christ Hospital, Jersey City
(Sponsored by New Jersey Thoracic Society of Northern New Jersey and Academy of Medicine)

20 **Medical Lecture Series**
22 11 a.m.-12 noon — Greystone Park Psychiatric
27 Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

20 Joint Neurological-Neurosurgical Conferences
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

20 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

20 Dermatology
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

21 Cardiology Conferences
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

21 Rehabilitation of the Brain-Damaged Patient
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

21 Pediatric Guest Lectures
6:30 p.m. — St. Francis Medical Center, Trenton
(Sponsored by St. Francis Medical Center, Hahnemann Medical College and Hospital, and AAFP)

21 Recent Advances in Pulmonary Disease
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange and Academy of Medicine)

21 Treatment of Pain; Medical and Neurosurgical
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

21 Thyroid Diseases
3 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

21 Geriatric Psychiatric Syndromes with Review of Chemotherapy
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

22 The Middle Ear
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

22 Therapy of Diabetes
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

22 Modern Management of Pulmonary Tuberculosis
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

22 Internal Medicine/Family Medicine Visiting Professorships
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

24 Seminar on Human Sexuality
8:30 a.m.-2:30 p.m. — Ramada Inn, Clark
(Sponsored by Philippine American Medical Society of New Jersey and Academy of Medicine)

25 The Many Faces of Depression
9 a.m.-5 p.m. — Gen. Boyles Restaurant, Clifton
(Sponsored by Clifton Mental Health Services and Academy of Medicine)

27 Difficult Clinical Case Presentation
8-10 p.m. — 6 West Walnut Ave., Moorestown
(Sponsored by S. Jersey Neuro-Psychiatric Association and Academy of Medicine)

27 Rape — Physician's Role
8-10 p.m. — 151 Hillside Avenue, Englewood
(Sponsored by New Jersey Medical Women's Association and Academy of Medicine)

27 Clinical Pathological Conferences
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

27 Trauma-Outpatient Department
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

27 Perinatology and Neonatology Seminar
7 p.m. — Chilton Memorial Hospital, Pompton Plains
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

28 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

28 Management of the Diabetes Patient
9 a.m.-5 p.m. — Rutgers Medical School, Piscataway
(Sponsored by American Diabetes Association and AAFP)

28 Alcoholism
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

28 New Approach to the Cataract Patient
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

29 Breast Cancer Symposium
9 a.m.-12 noon; 2-4:30 p.m. — Inn of Trenton, Trenton
(Sponsored by Mercer County Medical Society, Mercer County ACS, and Academy of Medicine)

29 "U" Treatment of Ankle Sprain
12 noon-1 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

29 **Catatonia**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

30 **Diagnosis of the Anemic Patient**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

May

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Frday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
Weekdays, 12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

1-2 **Cancer Risk Identification and Control**
9 a.m.-5 p.m. (first day), 9 a.m.-12 noon (second day) — Cherry Hill Inn, Cherry Hill
(Sponsored by American Cancer Society and AAFP)

1 8 15 22 29 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 10 17 24 **Distinguished Lectures in Surgery**
4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

3 **Anesthesiology**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

3 10 17 24 **Endocrine Conferences**
11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

4 11 18 25 **Topics in Neurosurgery**
4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

4 **New Developments in Scanning**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

4 11 18 25 **Tumor Conferences**
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

4 11 19 25 **Psychiatric Case Conferences**
7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

5 **Biochemistry of Mental Disorder**
8 a.m.-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

5 12 19 26 **Renal Tubular Dysfunction**
Intestinal Absorption and Malabsorption
The Future of Allergy
Office Use of Antibiotics
9:00-11:00 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

5 **Management of the Juvenile Diabetic**
Cherry Hill Inn, Cherry Hill
(Sponsored by Juvenile Diabetes Foundation of Southern New Jersey)

5 **Psychiatric Problems of the Younger Veteran**
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

5 12 19 26 **Conferences in Endocrinology**
3:30-5 p.m. — Location to be announced
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)

5 12 19 26 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

5 12 19 **Perinatal Seminars**
9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center)

5 **Distinguished Lectures in Obstetrics and Gynecology**
6 p.m. — Carriage Trade, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 19 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Conferences in Endocrinology**
6 p.m. — Holiday Inn, East Orange
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

5 **Peripheral Vascular Disease**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital, Jersey City)

6 **Internal Medicine/Family Medicine Visiting Professorships**
12 noon-1 p.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

6 13 20 27 **Topics in Oncology**
1:30-2:30 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

6 **Basic Sciences and Clinical Applications**
13 Burlington County Memorial Hospital, Mt. Holly
20 *(Sponsored by Burlington County Memorial Hospital and AAFP)*

6 **Spiritual Aspects of Alcoholism**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

6 **Regional Chest Conferences, Central New Jersey**
4-6 p.m. — Hunterdon Medical Center, Flemington
(Sponsored by New Jersey Thoracic Society and Academy of Medicine)

6 **Medical Lecture Series**
11 11 a.m.-12 noon — Greystone Park Psychiatric
13 Hospital
18 *(Sponsored by Greystone Park Psychiatric Hospital*
20 *and Academy of Medicine)*

7 **Family Practice Review**
14 Freehold Area Hospital, Freehold
21 *(Sponsored by Freehold Area Hospital and AAFP)*
28

7 **Fiberoptic Bronchoscopy**
8:30 a.m. — United Hospitals of Newark
(Sponsored by United Hospitals of Newark and Academy of Medicine)

11 **Arthritis**
10 a.m. — North Hudson Hospital, Weehawken
(Sponsored by North Hudson Hospital and Academy of Medicine)

11 **Emergency Medicine**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

11 **Laboratory Interpretations**
9 p.m. — West Hudson Hospital, Kearny
(Sponsored by West Hudson Hospital and Academy of Medicine)

11 **Problem Family Case Presentations**
18 9-11:30 a.m. — Rutgers Medical School, Piscataway
(Sponsored by CMDNJ-Rutgers Medical School and AAFP)

11 **Arthritis**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

12 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Office Treatment of Depression**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

12 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

12 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

12 **Chronic Renal Failure**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

12 **Neurology Symposium**
8:30 a.m.-4 p.m. — Englewood Hospital
(Sponsored by Englewood Hospital Association and Academy of Medicine)

12 **Nuclear Cardiovascular Studies**
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

13-15 **Rational Drug Therapy in Cardiovascular Disease, II**
9 a.m.-5 p.m. — Nassau Inn, Princeton
(Sponsored by American College of Cardiology and AAFP)

13 **Liver Disease and Ascites**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

13 **Management of Hyperlipidemias**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Genetics**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Inflammatory Bowel Disease**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

17 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

18 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

18 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 **Headache**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

18 **Cardiac Complications of CNS Drugs**
1-3 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

18 **Common Medical Problems**
8 a.m. — So. Ocean County Hospital, Manahawkin
(Sponsored by Burlington County Hospital and AAFP)

19 Pediatric Guest Lectures
6:30 p.m. — St. Francis Medical Center, Trenton
(Sponsored by St. Francis Medical Center and AAFP)

18 Drug Addiction
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

19 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

19 Diabetes Mellitus
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

19 Perinatal Seminars
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center, Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

19 New Developments in Scanning
Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

19-21 Emergency Medicine Conferences
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

20 Radiology
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

20 Postgraduate Symposia in Surgery
West Jersey Hosital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

20 Does Psychiatry Exist?
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

21 Management of Hepatitis
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 Management of End-Stage Renal Disease
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 Abnormalities in Growth Patterns in Childhood and Adolescence
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 Clinical Pathological Conferences
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 Drug Addiction
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

25 Inter-Sexuality, Hypospadias in Male, and Ambiguous Genitalia
7-10 p.m. — Englewood Men's Club
(Sponsored by Englewood Hospital Association and Academy of Medicine)

25 Perinatology and Neonatology Seminar
7 p.m. — Saddle Brook General Hospital
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

26 Advances in Management of Learning Disabilities
9-11 a.m., 12:30-3:30 p.m. — St. Clare's Hospital, Denville
(Sponsored by St. Clare's Hospital and Academy of Medicine)

26 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 Annual Awards Dinner — AMNJ
6:30 p.m. — The Chanticler, Millburn
(Sponsored by Academy of Medicine)

26 Child Abuse Revisited
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

27 In Vitro Studies of Erythropoiesis
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

27 Pulmonary Embolism
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

27 Ureteral Injury with Updated Repair Techniques
12 noon-1 p.m. —St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

28 Thyroid Diseases
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

June

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

1, 15, 17, 22, 29 **Medical Lecture Series**
11 a.m.-12 noon — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

1 **Topics in Neurosurgery**
8 4-5 p.m. — VA Hospital, East Orange
15 *(Sponsored by CMDNJ-New Jersey Medical School,*
22 *VA Hospital, and Academy of Medicine)*
29

1 **Psychiatric Case Conferences**
8 7:30-9:30 a.m. — Trenton Psychiatric Hospital
15 *(Sponsored by Trenton Psychiatric Hospital and*
22 *Academy of Medicine)*
29

1 **Tumor Conferences**
8 11 a.m.-12 noon — Morristown Memorial Hospital
15 *(Sponsored by Morristown Memorial Hospital and*
22 *Academy of Medicine)*
29

2 **Computerized Axial Tomography**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

2 **Obstructive Lung Disease**
1:00 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and Academy of Medicine)

2 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

2 **Cardiology Conferences**
16 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3 **Topics in Oncology**
10 1:30-2:30 p.m. — Martland Medical Unit, Newark
17 *(Sponsored by CMDNJ-New Jersey Medical School*
24 *and Academy of Medicine)*

3 **Gynecological Laparoscopy**
4 9 a.m.-5 p.m. — First Day
8 a.m.-3 p.m. — Second Day, Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

4-8 **MSNJ Annual Meeting**
Cherry Hill Hyatt House
Cherry Hill

4 **Fluid and Electrolyte Imbalance**
8:30 a.m. — United Hospitals of Newark
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

5 **Annual Governor's Conference**
9:45 a.m.-12 noon — Hyatt House, Cherry Hill
(Sponsored by The Medical Society of New Jersey)

5 **Advances in Orthopedic Surgery**
12 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
19 School, Newark
26 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

6 **Scientific Sessions — MSNJ Annual Meeting**
7 Hyatt House, Cherry Hill
(Sponsored by MSNJ and related specialty societies)

6 **Family Practice (MSNJ Sections)**
7 Hyatt House, Cherry Hill
(Sponsored by MSNJ and AAFP)

7 **Thyroid Diseases**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

7 **Endocrine Conferences**
14 11 a.m. — Elizabeth General Hospital, Elizabeth
21 *(Sponsored by Elizabeth General Hospital and AAFP)*
28

8 **Tuberculosis**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

8 **Trauma and the Emergency Department**
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

8 **Acute Renal Failure**
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Nephrology Society of New Jersey, N. J. RMP, and Academy of Medicine)

9 **Thanatology**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

9 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

11 **Gastroenterology**
1:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

12 **Antibiotics and Surgical Infection**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 **Infertility**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

OBITUARIES

Dr. Cedric C. Carpenter

Cedric C. Carpenter, M.D., formerly of Summit and a member of our Union County Medical Society, died on January 27 after a prolonged illness. A native of Washington in the Pacific Northwest, Dr. Carpenter earned his medical degree from George Washington University Medical School in 1928 and continued to study in a residency program at the New York Skin and Cancer Hospital. He became board certified in dermatology-syphilology and opened offices in Summit and Morristown for the practice of that specialty, which he maintained until retirement to Beach Haven in 1968. He was on the staff at All Soul's and Memorial Hospitals in Morristown and the Overlook Hospital in Summit. Dr. Carpenter was a member of the American Academy of Dermatology and of the Investigative Dermatology Society. He was 69 years old at the time of his death.

Dr. Hyman Chimacoff

On January 17, Hyman Chimacoff, M.D., died suddenly at Beth Israel Medical Center in Newark following a myocardial infarction. Born in 1907 and a graduate of the University of Maryland School of Medicine, class of 1933, Dr. Chimacoff had been a general practitioner in the Newark area for many years. In addition to the Beth Israel Medical Center, where he was on the staff in the medical department, he was affiliated with the St. Barnabas Medical Center in Livingston.

Dr. M. Jonas Colmer

One of Essex County's senior members, M. Jonas Colmer, M.D., died on January 5 at the VA Hospital in Lyons, after suffering a myocardial infarction. A graduate of the University of Pennsylvania School of Medicine in 1927, Dr. Colmer practiced obstetrics and gynecology in Newark for many years. In the latter part of his career he worked as an anesthesiologist and in 1971 he retired to Union County. Dr. Colmer had formerly been associated with the Beth Israel Medical Center in Newark and with Elizabeth General Hospital. He was 72 years old at the time of his death.

Dr. Vincent Costabile

Word has just been received of the death on July 12, 1975, of Vincent Costabile, M.D., of Lyndhurst. Born at the turn of the century and a native of Naples, Italy, Dr. Costabile earned his medical degree from the medical school at the University of Naples in 1924 and emigrated to the United States in 1927. He practiced in Brooklyn, New York, with time out for service as a medical officer in the AUS during World War II, until 1948 when he moved to Bergen County. His specialty was internal medicine with particular interest in geriatrics. He had formerly been associated with the Hackensack Hospital and was a member of the American Geriatrics Society.

Dr. Anthony L. Cuozzo

The Medical Director of the Essex County Correctional Center in Caldwell, Anthony L. Cuozzo, M.D., died suddenly on January 6 at Mountainside Hospital in Glen Ridge, following a myocardial infarction. Born in Newark in 1929, Dr. Cuozzo earned his medical degree from the University of Naples (Italy) in 1962 and returned to Newark for internship, followed by a three-year residency in psychiatry at Marlboro State Hospital. In addition to his appointment at the correctional center, he maintained a private practice and was on the staff at Clara Maass Hospital in Belleville and at the Columbus Hospital in Newark.

Dr. Carmine DeVivo

After a prolonged illness, Carmine DeVivo, M.D., died at his home in South Orange on December 14, 1975. Born in 1921 and a graduate of Georgetown University Medical School, class of 1946, Dr. DeVivo pursued a career in anesthesiology and was board certified in that specialty. He had been associated with East Orange General and Orange Memorial Hospitals and currently was affiliated as attending anesthesiologist with Clara Maass Hospital in Belleville. Dr. DeVivo was a Fellow of the American College of Anesthesiologists and a

member of the New Jersey Society of Anesthesiology and of our Essex County component.

Dr. Louis J. Garibaldi

On December 7, 1975, Louis J. Garibaldi, M.D., formerly of Hoboken, died suddenly at Jersey City Medical Center. A 1926 graduate of Georgetown University Medical School, Dr. Garibaldi practiced internal medicine in Hudson County for many years, retiring in 1973. He had been on the active staff at St. Mary's Hospital in Hoboken, and at the Medical Center and St. Francis Hospital in Jersey City. He had been associate clinical professor of medicine at Seton Hall University College of Medicine, the forerunner of the present CMDNJ. Dr. Garibaldi was 73 years old at the time of his death.

Dr. Ronald L. Jardine

One of Ocean County's senior members, Ronald L. Jardine, M.D., died suddenly at his home following a myocardial infarction. Dr. Jardine was graduated from the medical school at Northwestern University in 1926 and came to New Jersey from Illinois in 1956 to practice general medicine in Beach Haven. He had been on the courtesy staff at Paul Kimball Hospital in Lakewood. Dr. Jardine was 77 years old at the time of his death.

Dr. Frank Kren

One of Mercer County's senior members, Frank Kren, M.D., died on February 15 at Helene Fuld Medical Center in Trenton after a short illness. Born in Linz, Austria in 1893, Dr. Kren attended the medical school at the University of Innsbruck and was graduated in 1919 from the University of Prague Medical School. He went on to specialize in dermatology and practiced that specialty in Vienna until the political situation forced him to flee his native land. He arrived in the United States in 1939 and practiced medicine in New York City before coming to Trenton in 1941. Dr. Kren had been chief of dermatology at Helene Fuld Medical Center and on the staff in that department at New York Polyclinic Hospital.

Dr. William A. Leff

On December 20, 1975, William A. Leff, M.D., a member of our Essex County component, died after a brief illness. Born in 1912 and graduated from the Duke University College of Medicine, class of 1937, Dr. Leff pursued a residency in internal medicine and was board certified in that specialty. His particular interest was in cardiology and he held staff appointments in that department at St. Barnabas Medical Center in Livingston and at Crippled Children's Hospital in Newark. He was attending internist at Martland and Beth Israel Hospitals in Newark and at the Kessler Institute in West Orange. Dr. Leff was a Fellow of the American College of Physicians and of the American College of Cardiology.

Dr. Alfred Meurlin

Following a prolonged illness, Alfred Meurlin, M.D., a senior member from Essex County, died on January 27 at Orange Memorial Hospital where he had been affiliated for many years. Born in 1897 and graduated from Columbia University's College of Physicians and Surgeons in the class of 1921, Dr. Meurlin, a native of Brooklyn, came to New Jersey to establish a practice in obstetrics and gynecology and served the residents of the Oranges for many years. He was a Fellow of the American College of Surgeons and of the American College of Obstetrics and Gynecology, and a member of the New Jersey Obstetrical and Gynecological Society. In addition to his association with Orange Memorial Hospital, he had been on the staff at East Orange General Hospital.

Dr. William Missonellie

On February 7 William Missonellie, M.D., a member of our Passaic County component, died at his home. Graduated from George Washington University School of Medicine in 1929, he returned to his home community of Hawthorne for the practice of general medicine. He was interested in community affairs, and served as school physician and borough police and fire surgeon. He was a member of the local board of health and was on the board of managers of Preakness Hospital where he served

three terms as president. He was a member of the Aerospace Medical Association, the Industrial Medical Association, the American Geriatrics Society, and the New Jersey Hospital Association. Dr. Missonellie was 72 years old at the time of his death.

Dr. Saul A. Naidorff

Word has just been received of the death on November 16, 1975, of Saul A. Naidorff, M.D., of Plainfield. Born in 1906, Dr. Naidorff was graduated from St. Louis University College of Medicine in 1932 and came to Union County to establish a general practice. He was affiliated with Muhlenberg Hospital in Plainfield, most recently in the capacity of emergency room director.

Dr. Joseph E. Nichols

Formerly a member of the Essex County Medical Society, Joseph E. Nichols, M.D., died suddenly at his home in East Orange on January 12. A graduate of Long Island University's College of Medicine in 1942, Dr. Nichols had practiced obstetrics and gynecology in East Orange until retirement in 1973. He formerly had been associate on the attending staffs at Orange Memorial Hospital and St. Barnabas Medical Center in Livingston. During World War II, Dr. Nichols was a medical officer in the Department of the Navy. He was 63 years old at the time of his death.

Dr. Daniel C. Reyner

Daniel C. Reyner, M.D., of Atlantic County, died suddenly on January 9 in Atlantic City Hospital. Born in 1894, and graduated from the University of Pennsylvania School of Medicine in 1918, he had formerly practiced in Atlantic City and was associated with both the Atlantic City Hospital and the Betty Bachrach Home in Longport. Dr. Reyner retired to Margate City because of ill health in 1953.

Dr. Eugene Robertson

One of Passaic County's senior members, Eugene Robertson, M.D., died on January 23 at Valley Hospital, Ridgewood, after a brief illness. Born in 1899 and a native of Montana, Dr. Robertson was graduated from the University of Oregon Medical School in 1926 and came to New York for internship, remaining in the East to establish an office in Passaic County for general practice. He had been affiliated with the Paterson General and Valley Hospitals and was a Fellow of the American Academy of Family Practice. Dr. Robertson had served in both World War I and II, in the latter as a medical officer in the AUS.

Dr. Jacob Rosenberg

At the grand age of 86, Jacob Rosenberg, M.D., of Jersey City, who had practiced general medicine in that town for more than 60 years, died at Downstate Medical Center in Brooklyn on February 7. A native of Latvia, Dr. Rosenberg had earned his medical degree from Long Island College of Medicine in 1910. During his years of active practice he had been affiliated with the Jersey City Medical Center and Fairmount Hospital there. He was a member of the Hudson County component and was one of the first physicians in New Jersey to enlist in the United States Army at the outbreak of World War I.

Dr. Burnet Rothhouse

On December 27, 1975, Burnet Rothhouse, M.D., a member of our Essex County component, died at St. Mary's Hospital in Orange, following a prolonged illness. Born in 1899 and a graduate of New York University School of Medicine, class of 1925, Dr. Rothhouse continued graduate studies in urology, becoming board certified in that specialty. He had been affiliated with Babies', Martland, and Beth Israel Hospitals in Newark, with Irvington General in Irvington, with St. Barnabas in Livingston, with St. Mary's in Orange, and with St. Vincent's in Montclair. Dr. Rothhouse was a Fellow of the American College of Surgeons and a member of the American Urologists Association.

Dr. George B. Sharbaugh

One of Trenton's well-known ophthalmologists, George B. Sharbaugh, M.D., died suddenly on

March 2nd at Mercer Medical Center where he was a member of the staff. A native of Trenton, Dr. Sharbaugh was graduated from Temple University School of Medicine in 1936, and after internship he took a residency in ophthalmology at Davis Hospital in Statesville, North Carolina. He pursued additional graduate studies at New York University, Columbia University Hospital, Manhattan Eye and Ear Hospital, and Wills Eye Hospital in Philadelphia. Dr. Sharbaugh was board certified in his chosen specialty and was a Fellow of the American Association of Ophthalmology and Otolaryngology. He had served a term as medical director of the Mercer Medical Center and was an attending physician in the Department of Ophthalmology there. He was a member of the Committee on Publication of The Medical Society of New Jersey for nine years and for six of those years served as its chairman. During World War II he was a medical officer in the Army of the United States, serving with the 307th and 13th General Hospitals. Dr. Sharbaugh was 64 years old at the time of his death.

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June 4-8, 1976
Cherry Hill Hyatt House

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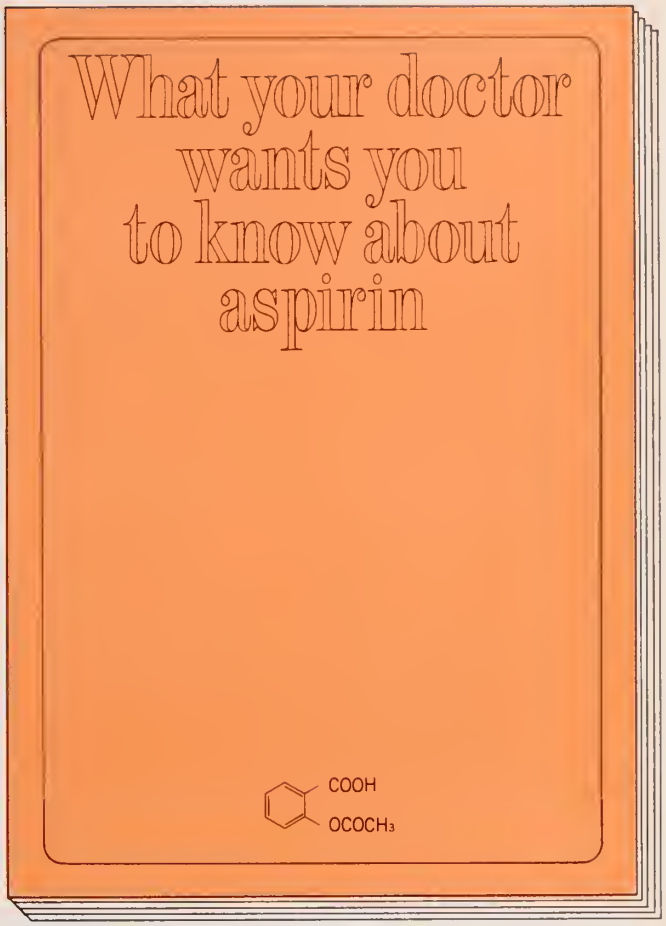
*Moertel, C.G., et al: N. Engl. J. Med. *286*:813 (Apr. 13) 1972.



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83%
achieved <1000/ml urine

*In a new study 8 out of 10 patients with acute lower urinary tract infection, primarily cystitis, achieved sterile urine. All infections were nonobstructed. Susceptible organisms included *E. coli*, *Klebsiella-Aerobacter*, *Proteus mirabilis* and *Proteus vulgaris*.

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Basic therapy with convenience and economy in acute nonobstructed cystitis†

†due to susceptible organisms

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sulfamethoxazole/Roche

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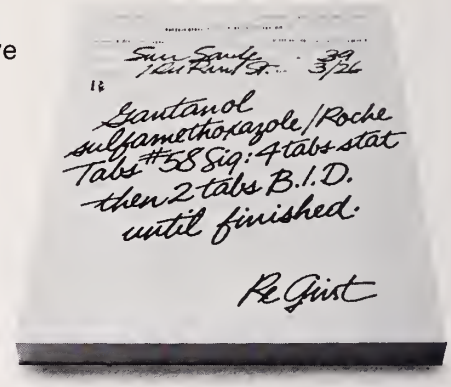

*due to susceptible organisms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily nonobstructed pyelonephritis, pyelitis and cystitis) due to susceptible organisms, usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris*. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

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1. Russek HI: AM J M Sc 239:478, 1960

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EDITORIALS

The Cost of Living and Dying

On April Fool's Day, three officers of The Medical Society of New Jersey attended an open meeting of the Health Care Administration Board. While driving to Trenton to meet our Executive Director and the Chairman of the Board of Trustees, I had in my pocket an editorial from the *Wall Street Journal* of March 31, 1976, entitled "Question of Life and Death" which stated, "It will not be long before we shall have to make some rational decisions about how much of our social wealth is to be spent on extraordinary measures to keep the older members of our population alive." On the seat beside me a newspaper headline proclaimed, "Miss Quinlan given the right to die." Then for two hours at the HCAB meeting I heard the leading economist of the Department of Health review the proposed guidelines for paying hospitals for the care of patients in 1977. Some of the statements I heard were shocking. A representative of the Department of Health with a Ph.D. degree: "We want to set prospective rates and hold hospitals to a set budget." A hospital trustee: "With the present trend, voluntary hospitals will be a thing of the past in two to three years." A deputy from the Department of Health: "Bureaucrats get regulations because something happens!" All this took place about ten hours after the Teamsters had called a nationwide strike for higher pay! Our state government is attempting to put a ceiling on the price of illness in a hospital setting regardless of the cost for a hospital to exist.

Our profession faces a real enigma. Is every life worth preserving? Is all sickness worth treating? One segment of our society has been trained to save lives at any cost while another suggests that if one gets sick he should acquire an illness that is not too costly to treat. Others believe that some people are not worth keeping alive. The danger in this instance is in deciding who makes the ultimate decision. The New Jersey Supreme Court has ruled that a person in an "irreversible condition" should not be compelled to "endure the unendurable." A professor of philosophy at Vanderbilt University questions the advisability of keeping "the older members of our population alive."

It is becoming more and more difficult for each of us to live up to that part of the Oath of Hippocrates which professes, "I will follow that method of treatment which, according to my ability and judgment, I consider for the benefit of my patients." There are now so many third parties who control and regulate medical care (for example, Federal, State and local government; nursing home administrators, judges and juries, medical insurance providers) that the one-to-one doctor-patient relationship is a thing of the past.

As members of a profession which cares, let us make sure that *all patients get good medical care* and make them aware that the cost of that care is often raised by regulations of controlling agencies, which are expensive to operate and whose existence may be questionable.

John S. Madara, M.D.

EKG — Not a Crystal Ball

The story is so common — and so well known to physicians — that it hardly bears repeating. Being central to the issue, however, it cannot be avoided.

A middle-aged, obese male complained of intermittent chest pains. Physical examination was negative except for obesity. An electrocardiogram was normal. The patient was told he might have "gallbladder trouble." The next day, while visiting in New York, his chest felt "like a horse was stepping on it." After some delay, he was taken to Bellevue Hospital and admitted to the coronary care unit with an acute myocardial infarction.

The patient and the family were critical of electrocardiography and were unhappy about its failure to anticipate the event which followed the cardiac study. The litigious potential of this situation is clear and would have been greater had the patient died enroute to the hospital.

So, what is to be said? The patient should have had an exercise electrocardiogram? Coronary angiography should have been recommended? The patient ought to have been hospitalized? One might say yes to all of such questions — and make other suggestions as well — but there is one concept about the electrocardiogram which is worth delineating.

The standard 12-lead electrocardiogram is *not* a crystal ball. It is incapable of predicting the future. It may not even be an accurate historian of past events. It cannot describe very precisely, in all instances, potential for development of a myocardial infarction. The resting EKG may tell the physician something about the present status of the electrical activities of the heart and the presence of detectable myocardial abnormality. If "negative" or "normal," it does not rule out serious endocardiac, myocardial, valvular, or even pericardial disorders. It may hint at electrolyte disturbances, but not always. In short, electrocardiography has certain potential values as a recorder of information relating to health and disease. It cannot do things it was not designed to do, therefore, the machine and the test should not be criticized for failing to tell something it cannot. In the final analysis, the physician — like the driver of an automobile — is responsible. He must carefully explain the meaning of the electrocardiogram to his patient, whether it is normal or not. This explanation must include a disclaimer against predicting the future — even one minute after the machine is disconnected from the patient. A.K.

Advice to the Traveler

"When you feel the least indisposition, do not attempt to overcome it by labour or marching. Rest in a horizontal posture. Also fasting and diluting drinks for a day or two will generally prevent an attack of fever. To these preventatives of disease may be added a gentle sweat obtained by warm drinks, or gently opening the bowels by means of one, two, or more of the purging pills.

"Unusual costiveness (constipation) is often a sign of approaching disease. When you feel it take one or more of the purging pills. Want of appetite is likewise a sign of approaching indisposition. It should be obviated by the same remedy.

"In difficult and laborious enterprises and marches, eating sparingly will enable you to bear them with less fatigue and less danger to your health. Flannel should be worn constantly next to the skin, especially in wet weather.

"The less spirit you use the better. After being *wetted* or *much* fatigued, or long exposed to the night air, it should be taken in an *undiluted* state . . .

"Molasses or sugar and water with a few drops of the acid of vitriol (sulphuric acid) will make a pleasant and wholesome drink with your meals.

"After long marches, or much fatigue from any cause, you will be more refreshed by lying down in a horizontal posture for two hours, than by resting a longer time in any other position of the body."

Translated into modern medical terminology, the above advice could serve the traveler to Mexico or elsewhere and might even prevent a case of "tourista" ("Montezuma's revenge"). Actually, however, it was a responsive letter of instructions sent to Captain Meriwether Lewis and William Clark at the request of President Thomas Jefferson in February, 1803 by Dr. Benjamin Rush. Rush was asked to provide medical directions for the preservation of the health of the expeditionary party sent to explore "the unknown reaches of the Missouri River and to find a route to the Pacific."

It is said that Jefferson had no confidence in the medical treatments of the day — purging, bloodletting, emetics, and the like — and, according to the journals of Lewis and Clark, the explorers ignored most of Rush's instructions anyway.

The scientific basis for treatments today is firmer than it was in our frontier days, but compliance with medical regimens is not much better in many instances than it was at the turn of the nineteenth century. A. K.

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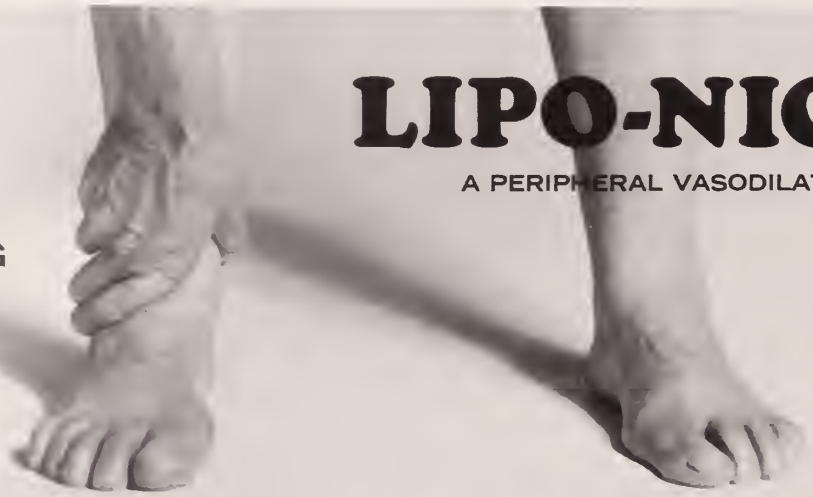

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Each yellow tablet contains:

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Thiamine HCL (B-1)	25 mg.
Riboflavin (B-2)	2 mg.
Pyridoxine HCL (B-6)	10 mg.

DOSE: 1 to 3 tablets daily.
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LIPO-NICIN/300 mg.
Each time-release capsule contains:

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Commentary

Community Blackmail — Academic Prostitution?

A recent Associated Press release with a Newark byline was headlined: "College Yields to Demands Over Exams." The item went on to state: "The faculty council at the New Jersey College of Medicine and Dentistry, faced with the threat of a black student strike and takeover of the school, has recapitulated and agreed to allow two black students to retake an oral examination they failed."

The term "recapitulated" seems to be correct — this is not the first time the council has surrendered to blackmailers who have coerced them into agreeing to "student demands." Obviously the news account did not describe the details of the incident nor the agony the council members may have suffered in executive session. It does evoke, however, a number of penetrating questions.

1. Is there something wrong with the selection process applied to our medical school applicants?

2. Should each minority group which feels so inclined be privileged to intimidate the academic community on such a basis?

3. Should there be a double or triple or quadruple standard of scholastic excellence?

4. What effect does such a headline-gathering situation have on the morale of the medical faculty?

5. Was this "solution" proper? (Dr. Stanley Bergen announced that "the council agreed to 11 of the 12 student demands, including the major one to allow James Turner and Diane Adams to retake their oral exams before a board that will include at least one black physician.")

It is unlikely that there is anything wrong with the medical school selection process — except that it has reinstituted the infamous quota system of years past. It is well known that even Harvard and Yale University schools of medicine must enroll a certain percentage of students from nonwhite minority groups and women. In "CMDNJ Notes" (*JMSNJ* 73:63, January 1976) Dr. Bergen reported that "twenty-five percent of the new students are women; twenty-one percent are members of minority groups" and five percent were from outside our State. This tells us that the white, male, New Jersey, premedical student is competing for one seat out of 50, not one out of 100, since half the seats are closed to him.

Why should legislative leaders or state leaders of minority organizations apply pressure against the faculty in such a situation? If this is legitimate, why not have the Jewish Defense League threaten to bomb the school, if a Jewish student faces expulsion? What intimidations will the women's liberation advocates suggest if a female student is asked to leave? The implications of such intervention should be clear to all.

The question of standards of excellence is clearly on the front burner. Government has demanded one quality of medical practice for all — excellent. How can we have one standard which applies to 80 percent of the students and a lower one for the remainder? This may provide warm bodies with medical degrees but it will not send good physicians into the community. Furthermore, the color of a physician on an oral examination board has nothing to do with the competence of the examiner or the student.

This kind of "community" participation in such an intrinsically complex and highly specialized pedagogical process as medical education — with its implications of life and death responsibility in the future — is nothing less than meddlesome and destructive. The faculty members surely must feel this noxious pressure which can only subvert their professional and personal morale to the detriment of their work, of the student-teacher relationship, and of the medical school itself.

Is capitulation to threats of "strike," of "takeover of college buildings," of government

pressure through political intervention the appropriate course? It may be the easiest and the most practical, but it is not the best. The solution is evasive and obviously broader. It should consider the following:

1. If a quota is a fact of life, then *every* student should be screened carefully enough so that the minority scholar is capable of passing examinations to demonstrate that he will be a high quality physician.

2. There should be *one* standard of excellence which applies to all students whether they be male, female, caucasian, black, hispanic, oriental, diabetic, or left handed. Students who have been unable to succeed in the medical curriculum should be assisted and directed into another field where their abilities and talents will succeed.

3. For the survival of *academia* — which after all is more important than the New Jersey College of Medicine and Dentistry, the present government caretakers in Newark and Trenton, and the current crop of future physicians — the medical school leaders and faculty must not capitulate even once to blackmail threats and coercion! To do so represents academic prostitution which can only mean the ultimate destruction of superior medical education in this state.

Arthur Krosnick, M.D.

210th Annual Meeting
June 5 - 8
Cherry Hill Hyatt House

Aerial View of Site

210th ANNUAL MEETING
The Medical Society of New Jersey

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June 5-June 8, 1976
Hyatt House
Cherry Hill

1976 Annual Meeting

RESUMÉ OF EVENTS

Registration

Saturday, June 5 from 8 a.m. to 4:30 p.m.
Sunday, June 6 from 9 a.m. to 4:30 p.m.
Monday, June 7 from 8:30 a.m. to 4:30 p.m.
Tuesday, June 8 from 9 a.m. to noon

House of Delegates

First Session—Saturday, June 5, 2 p.m.
Second Session—Sunday, June 6, 3:15 p.m.
Third Session (part I)—Monday, June 7, 3:15 p.m.
Third Session (part II)—Tuesday, June 8, 9 a.m.

Reference Committees

Saturday, June 5, 3 p.m. —
Reference Committee on Const. and Bylaws
Reference Committees "A", "B", "D", "G"
Sunday, June 6, 10 a.m.—
Reference Committees "C", "E", "F", "H"

Golden Merit Award

Saturday, June 5, 12 noon—Honored will be those members of MSNJ who have held the degree of Doctor of Medicine for fifty years. Reception immediately following ceremony.

Motion Picture Theater

Saturday, June 5, 2 p.m. Sunday and Monday, June 6 and 7, 10 a.m. and 2 p.m. Program arranged and presented through the cooperation of Roche Laboratories, Division of Hoffmann-LaRoche, Inc., Nutley.

General Session

Sunday, June 6, 3:45 p.m.—President's Farewell Address; Inauguration of Incoming President; Address of Incoming President

Scientific Program: Sections

Sunday, June 6, 9 a.m.
Allergy
Emergency Medicine
Otolaryngology
Sunday, June 6, 9:30 a.m.
Cardiovascular Diseases, Family Practice, Medicine
Sunday, June 6, 1 p.m.
Anesthesiology, Medicine
Family Practice
Plastic and Reconstructive Surgery, Urology
Rheumatism
Ophthalmology
Monday, June 7, 9 a.m.
Dermatology
Obstetrics and Gynecology, Surgery
Orthopedic Surgery, Radiology
Monday, June 7, 9:15 a.m.
Pediatrics, Psychiatry
Monday, June 7, 9:30 a.m.
Chest Diseases, Family Practice, Medicine
Monday, June 7, 1 p.m.
Gastroenterology and Proctology, Clinical Pathology
Neurosurgery and Neurology
Physical Medicine and Rehabilitation

Convention Celebration—Saturday, June 5, 6:30 p.m.—Cocktails-Dinner-Dancing
Entertainment—Cozy Morley Show

Inaugural Reception—Sunday, June 6, 6:30 p.m. (Honoring President-Elect Modoro)

Inaugural Dinner—Sunday, June 6, 8 p.m. (Honoring President-Elect Modoro)

Dinner Dance—Monday, June 7 at 8 p.m.
(Honoring President and Mrs. McGuire)
Dancing—Howard Reynold's Orchestra
Entertainment—Cozy Morley Show

Miscellaneous

Saturday, June 5, 8:30 a.m.—Governor's Conference on Primary and Secondary Prevention in Adult Medicine
Saturday, June 5, 9:30 a.m.—Meeting, New Jersey Academy of Ophthalmology and Otolaryngology
Saturday, June 5, 11:00 a.m.—Meeting, New Jersey Committee on Trauma; 12 noon—Luncheon; 1:30 p.m.—Spencer T. Snedecor Trauma Oration
Saturday, June 5, 7 p.m.—Dinner, New Jersey Academy of Ophthalmology and Otolaryngology
Sunday, June 6, 7:30 a.m.—Buffet Breakfast; 8:30 a.m.—AMA Issues Workshop
Sunday, June 6, 9:30 a.m.—Meeting, New Jersey Academy of Ophthalmology and Otolaryngology
Sunday, June 6, 12 noon—Luncheons
New Jersey State Society of Anesthesiologists
New Jersey Chapter, American College of Emergency Physicians
New Jersey Academy of Ophthalmology and Otolaryngology
Sunday, June 6, 1 p.m.—Meeting
Committee on the Handicapped
American Academy of Pediatrics

Sunday, June 6, 4:30 p.m.—Meeting
Society for the Relief of Widows and Orphans of Medical Men of New Jersey
Monday, June 7, 7:30 a.m.—JEMPAC Breakfast
Monday, June 7, 12 noon—Luncheons
New Jersey Dermatological Society
New Jersey Orthopaedic Society
New Jersey Society of Physical Medicine and Rehabilitation

Monday, June 7, 12:30 p.m.—Luncheon
New Jersey Chapter, American College of Chest Physicians

Monday, June 7, 5 p.m.—Cocktail Reception
Hahnemann Medical College Alumni Association

Monday, June 7, 5:30 p.m.—JEMPAC Wine and Cheese Reception

AMA Issues Workshop

Sunday, June 6

7:30 a.m. — Buffet Breakfast

8:30 a.m. — Workshop

1976 Annual Meeting

DAILY SCHEDULE

Saturday through Tuesday
June 5 to June 8

Cherry Hill
Hyatt House

Friday, June 4, 1976

4:00 p.m. —Board of Trustees

Saturday, June 5, 1976

8:00 a.m. —Registration Opens
8:30 a.m. —Second Annual Governor's Conference on Primary and Secondary Prevention in Adult Medicine
9:30 a.m. —Meeting, New Jersey Academy of Ophthalmology and Otolaryngology
11:00 a.m. —Meeting: New Jersey Committee on Trauma
12 noon —Exhibits Open
12 noon —Golden Merit Award Ceremony and Reception for Award Recipients and their families
12 noon —Luncheon — New Jersey Committee on Trauma
1:30 p.m. —Annual Spencer T. Snedecor Trauma Oration, New Jersey Committee on Trauma
2:00 p.m. —House of Delegates
2:00 p.m. —Motion Picture Theater
3:00 p.m. —Reference Committees: Constitution and Bylaws; "A"; "B"; "D"; "G"
5:00 p.m. —Nominating Committee
6:30 p.m. —Convention Revelry — Cocktails, Dinner, Entertainment, Dancing (Tickets on sale at Registration Desk)
7:00 p.m. —Officers' Dinner (by invitation only)
7:00 p.m. —Dinner — New Jersey Academy of Ophthalmology and Otolaryngology

Sunday, June 6, 1976

7:30 a.m. —Buffet Breakfast — AMA Issues Workshop (Tickets on sale at Registration Desk)
8:00 a.m. —Registration Opens
8:30 a.m. —AMA Issues Workshop
9:00 a.m. —Exhibits Open
9:00 a.m. —Scientific Sessions:
Allergy, Cardiovascular Diseases, Family Practice, Medicine, Emergency Medicine, Otolaryngology
9:30 a.m. —Meeting — New Jersey Academy of Ophthalmology and Otolaryngology
10:00 a.m. —Motion Picture Theater
10:00 a.m. —Reference Committees:
"C"; "E"; "F"; "H"
12 noon —Luncheons:
New Jersey Chapter, American College of Emergency Physicians
New Jersey State Society of Anesthesiologists
New Jersey Academy of Ophthalmology and Otolaryngology
1:00 p.m. —Meeting, Committee on Handicapped American Academy of Pediatrics
1:00 p.m. —Scientific Sessions:
Anesthesiology, Medicine, Family Practice, Ophthalmology, Plastic and Reconstructive Surgery, Rheumatism, Urology
2:00 p.m. —Motion Picture Theater
3:15 p.m. —House of Delegates (election)
3:45 p.m. —General Session: Addresses by President McGuire and President-Elect Madara
4:30 p.m. —Meeting: Society for the Relief of Widows and Orphans of Medical Men of New Jersey
6:30 p.m. —Inaugural Reception Honoring President-Elect Madara
8:00 p.m.—Inaugural Dinner Honoring President-Elect Madara (Tickets on sale at Registration Desk)

Monday, June 7, 1976

7:30 a.m. —JEMPAC Breakfast (Tickets on sale at Registration Desk)
8:30 a.m. —Registration Opens
9:00 a.m. —Exhibits Open
9:00 a.m. —Scientific Sessions:
Chest Diseases, Family Practice Medicine
Dermatology
Obstetrics and Gynecology, Surgery
Orthopedic Surgery, Radiology
Pediatrics, Psychiatry
10:00 a.m. —Motion Picture Theater
12 noon —Luncheons:
New Jersey Dermatological Society
New Jersey Orthopaedic Society
New Jersey Society of Physical Medicine and Rehabilitation
12:30 p.m. —New Jersey Chapter, American College of Chest Physicians (Annual Selman A. Waksman Lecture)
1:00 p.m. —Scientific Sessions:
Gastroenterology and Proctology, Clinical Pathology
Neurosurgery and Neurology
Physical Medicine and Rehabilitation
2:00 p.m. —Motion Picture Theater
3:15 p.m. —House of Delegates — Garden State Convention Center, Fourth Level
3:30 p.m. —Exhibits Close
5:00 p.m. —Alumni Reception, Cocktails Hahnemann Medical College
5:30 p.m. —JEMPAC: Cheese and Wine Reception
8:00 p.m. —Dinner-Dance Honoring President and Mrs. McGuire

Tuesday, June 8, 1976

9:00 a.m. —Registration Opens
9:00 a.m. —House of Delegates
12 noon —Registration Closes
4:00 p.m. —Board of Trustees

For the convenience of our members, **Hugo's Restaurant** of the Cherry Hill Hyatt House will serve buffet luncheon on Saturday, Sunday, and Monday (June 5, 6, and 7) and buffet breakfast on Sunday, Monday, and Tuesday (June 6, 7, and 8). Breakfast and luncheon will also be served each day in the **Ginsberg/Wong Restaurant** of the hotel.

Governor's Conference

Cosponsored by the Department of Preventive Medicine and Community Health, CMDNJ, New Jersey Medical School, Newark

Primary and Secondary Prevention in Adult Medicine

Saturday, June 5, 1976 **8:30 a.m.**

Presiding—Stanley S. Bergen, M.D., President, CMDNJ
Welcome—John J. McGuire, M.D., President, MSNJ
Keynote Remarks—Honorable Brendan T. Byrne, Governor of New Jersey
Remarks—Max H. Parrott, M.D., President, AMA

Primary and Secondary Prevention—Myths or Realities
D. B. Lauria, M.D., I. S. Thind, M.D., and G. R. Najem, M.D.,
Department of Preventive Medicine and Community Health
CMDNJ—New Jersey Medical School, Newark

Accident Prevention—What Can the Physician Do?
Seymour Charles, M.D., Clinical Assistant Professor
Department of Preventive Medicine and Community Health
CMDNJ—New Jersey Medical School, Newark

The Practicing Physician and Smoking Cessation
Norman Hymowitz, M.D., Ph.D., Assistant Professor
Department of Psychiatry
CMDNJ—New Jersey Medical School, Newark

Cholesterol Reduction
Norman Lasser, M.D., Associate Professor
Department of Medicine
CMDNJ—New Jersey Medical School, Newark

Hypertension Compliance
Richard V. Padell, M.D., Associate Director of Family Practice
Residency Training Program, Overlook Hospital, Summit

Human Sexuality—Role of the Practicing Physician
Mona M. Devanesan, M.D., Assistant Professor
Department of Obstetrics and Gynecology
CMDNJ—New Jersey Medical School, Newark

Health Education: Current Status
M. Lavenhar, Ph.D., D. J. Schneider, M.S.W., and J. Foster, B.S.
Department of Preventive Medicine and Community Health
CMDNJ—New Jersey Medical School, Newark

Proposed Program of Selective Screening and Health Education for Physicians
D. B. Lauria, M.D. and M. Quinones, Ph.D.
Department of Preventive Medicine and Community Health
CMDNJ—New Jersey Medical School, Newark

1976 Annual Meeting

GOLDEN MERIT AWARDS

Saturday, June 5 — 12 naan

Presiding
Jahn J. McGuire, M.D., President

Master of Ceremonies
Haward D. Slabadien, M.D., Chairman, Council on Public Relatians

Marshals
Presidents of Campanent Sacieties whase members are receiving awards

The Galden Merit Award, established in 1957, is canferred upan every member of The Medical Saciety af New Jersey wha has held the degree of Doctor af Medicine far fifty years.

Recipients For 1976

County	Member
Atlantic	Herman Kline, M.D.
	Allan Rieck, M.D.
	Louis Rosenberg, M.D.
	Levi Maare Walker, M.D.
	F. Rolfe Westney, M.D.
	Julius Winstan, M.D.
Bergen	Lyman Burnham, M.D.
	Gearge M. Knowles, M.D.
	Francis A. Macaulay, M.D.
	Irene Cecilia Dannelly Pindar, M.D.
	Edward Thamas Seymaur, M.D.
	Russell Knapp Tether, M.D.
Burlington	Clarence Jahn Pappen, M.D.
	Luis E. Viteri, M.D.
Camden	Arthur Elliat Hirsharn, M.D.
	Henry Gearge Marcarian, M.D.
	Hammell Pierce Shipps, M.D.
	Max Ludwig Weimann, M.D.
Essex	Otto Brandman, M.D.
	Edward Vincent Brawn, M.D.
	Jeremiah Lawrence Buckley, M.D.
	Francis P. Carrigan, M.D.
	Katherine Burnet Hahn, M.D.
	William Edgar Hahn, M.D.
	Fred A. Hasney, M.D.
	Erwin J. Kaderabek, M.D.
	Charles Oscar Leff, M.D.
	Jaseph Levin, M.D.
	Aaron Lawenstein, M.D.
	Herbert Langmore Mahaad, M.D.
	Dean W. Marquis, M.D.
Essex	Alexander Edgar Nash, M.D.
	Benjamin Palaw, M.D.
	F. Parker Willey, M.D.
Hudson	Michael Harry Aria, M.D.
	Filarginia dePasquale, M.D.
	William Timathy Fifer, M.D.
	Frederick A. Finger, M.D.
	Mario Olegario Ganzalez, M.D.
	Gregary Jawny, M.D.
	Jacab Herman Lefkawitz, M.D.
	David Osterreicher, M.D.
	Henry Jahn Schwarz, Sr., M.D.
Mercer	William J. H. Abey, M.D.
	H. Danald Cawlbeck, M.D.
	Walter D. Farmer, M.D.
	Albert F. Mariconi, M.D.
	Walter R. Petersan, M.D.
	Narman Plummer, M.D.
Monmouth	Harald Herman Freedman, M.D.
	Jaseph Berkeley Gordon, M.D.
	Alexander Alfred Padell, M.D.
Morris	J. Arthur Byrne, M.D.
Passaic	Jacab Averbach, M.D.
	Dale Ellis Beverly, M.D.
	Irving A. Silverman, M.D.
	Henry Eugene Reading, M.D.
Union	Larrimer B. Armstrang, M.D.
	Gearge Kemeny, M.D.

Annual Spencer T. Snedecor Trauma Oration

Saturday, June 5, 1976 Cherry Hill Hyatt House 1:30 p.m.

Management of Trauma Utilizing an Emergency Medical Services System

ROBERT MASON, M.D., Professor of Surgery, University of Maryland School of Medicine, College Park, Maryland

The New Jersey Committee on Trauma will present its Annual Spencer T. Snedecor Trauma Oration during the 210th Annual Meeting of The Medical Society of New Jersey. Preceding the lecture, there will be a meeting of the Committee at 11:00 a.m. and a luncheon at 12 noon.

(Members of The Medical Society of New Jersey and other physicians are invited to attend.)

1976 Annual Meeting

CONVENTION REVELRY

Saturday, June 5 Hyatt House

Cocktails — 6:30 p.m.

Dinner — 8 p.m.

Entertainment — Cozy Morley Show
Singer/Comedian/Musician

Dancing — Howard Reynolds Orchestra

Inaugural Reception

Honoring President-Elect John S. Madara

Sunday, June 6 — 6:30 p.m.

Members, official guests, their wives, and Auxiliary members are cordially invited — admission is by badge

Inaugural Dinner

Honoring President-Elect John S. Madara

Sunday, June 6 — 8:00 p.m.

(Tickets on sale at Registration Desk)

1976 Annual Meeting

DINNER-DANCE

Monday, June 7 8:00 p.m.

Honoring

President and Mrs. John J. McGuire

Toastmaster — Arthur Bernstein, M.D.

Welcome

Mrs. Frank B. Doggett, Jr., President
Woman's Auxiliary

Introductions

Mrs. Lucius Tarchiani, President-Elect
Woman's Auxiliary

John S. Madara, M.D., President-Elect
The Medical Society of New Jersey

Presentations

Fellow's Key

To: John J. McGuire, M.D., President
By: James A. Rogers, M.D., Immediate Past-President

Fellowette's Pin

To: Mrs. Frank B. Doggett, Jr., President
Woman's Auxiliary

By: John J. McGuire, M.D., President
The Medical Society of New Jersey

Entertainment

Cozy Morley Show — Singer/Comedian

Dancing

Howard Reynolds Orchestra

1976 Annual Meeting

REFERENCE COMMITTEES

Saturday, 3:00 p.m. — June 5, 1976
Sunday, 10:00 a.m. — June 6, 1976

Reference Committee on Constitution and Bylaws
Reports of the:
- Committee on Revision of Constitution and Bylaws
- Amendments to Constitution
- Amendments to Bylaws

Reference Committee "A"
Reports of the:
- President
- Board of Trustees
- Secretary
- Judicial Council
- Executive Director
- Committee on Credentials
- Committee on Long Range Planning and Development

Reference Committee "B"
Reports of the:
- Treasurer
- Committee on Finance and Budget
- Committee on Medical Student Loan Fund
- Committee on Physicians' Relief Fund
- Committee on Publication

Reference Committee "C"
Reports of the:
- Medical-Surgical Plan of New Jersey
- Committee on Medical Defense and Insurance
- Committee on Professional Liability
- Committee on Retirement Plan for Physicians

Reference Committee "D"
Reports of the:
- Committee on Medical Education
- Committee on Medicine and Religion
- Committee on Emergency Medical Care

Reference Committee "E"
Reports of the:
- Council on Legislation
- Council on Public Relations

Reference Committee "F"
Reports of the:
- Council on Medical Services, and its Special
- Committee on Occupational Health, Workmen's Compensation and Rehabilitation
- Council on Mental Health, and its Special Committees on:
  - Alcoholism
  - Drug Abuse
  - Emotional Disorders of Childhood and Adolescence
  - Mental Retardation
  - Neurological and Related Disorders
- Medicaid Committee
- Membership Inquiries and Complaint Com.

Reference Committee "G"
Reports of the:
- Council on Public Health, and its Special Committees on:
  - Cancer Control
  - Child Health
  - Chronically Ill and Aging
  - Conservation of Vision, Hearing, and Speech
  - Environmental Health
  - Maternal and Infant Welfare

Reference Committee "H"
Reports of the:
- Committee on Annual Meeting, and its Special
- Committees on:
  - Scientific Exhibits
  - Scientific Program
- Committee on Honorary Membership
- Advisory Committee to the Woman's Auxiliary
- Nominations for Emeritus Membership

The Committee on Credentials will meet at the Registration Desk each morning of the meeting.

1976 Annual Meeting

HOUSE OF DELEGATES

Saturday, 2:00 p.m.	June 5, 1976
Sunday, 3:15 p.m.	June 6, 1976
Monday, 3:15 p.m.	June 7, 1976
Tuesday, 9:00 a.m.	June 8, 1976

President—John J. McGuire, M.D., South Orange Secretary—Arthur Bernstein, M.D., Maplewood
Speaker—Henry J. Mineur, M.D., Cranford
Vice Speaker—James E. George, M.D., J.D., Woodbury

Sessions

Saturday, June 5, 1976—2 p.m.

First Session
Invocation
  Reverend William T. McGuire
  St. Matthews Church, Ridgefield
Call to Order by the Speaker
  Henry J. Mineur, M.D.
Organization of the House
Transactions of 1975 House of Delegates
Transactions of 1975 Special Session
Introduction of Guests and Delegates from Other States
Annual and Supplemental Reports
Proposed Amendments to the Constitution and Bylaws
Resolutions
New Business
Announcements

Sunday, June 6, 1976—3:15 p.m.

Second Session
Report of Nominating Committee
Election
President's Farewell Address
Inauguration of Incoming President

Monday, June 7, 1976—3:15 p.m.

Third Session (Part I)
Reports of Reference Committees: "A", "B", "D", "G", Const. and Bylaws

Tuesday, June 8, 1976—9 a.m.

Third Session (Part II)
Reports of Reference Committees: "C", "E", "F", "H"
Unfinished Business
Adjournment

OFFICES TO BE FILLED BY ELECTION — 1976 Annual Meeting

OFFICE	TERM	FROM	TO	INCUMBENT AND COUNTY
President-Elect	1 year	June 1976	June 1977	John S. Madara, M.D. Salem
1st Vice-President	1 year	June 1976	June 1977	Frank R. Begen, M.D. Bergen
2nd Vice-President	1 year	June 1976	June 1977	Charles S. Krueger, M.D. Burlington
Secretary	1 year	June 1976	June 1977	Arthur Bernstein, M.D. Essex
Treasurer	1 year	June 1976	June 1977	Rudolph C. Gering, M.D. Mercer
Trustees				
1st District	3 years	June 1976	June 1979	Augustus L. Baker, Jr., M.D. Morris
4th District	3 years	June 1976	June 1979	[a]Vacancy

[a]Additional Trustee because of increase in membership

4th District	3 years	June 1976-June 1979	Meyer L. Abrams, M.D. Burlington
5th District	3 years	June 1976-June 1979	David R. Brewer, Jr., M.D. Gloucester
Judicial Councilors			
3rd District	3 years	June 1976-June 1979	Albert F. Moriconi, M.D. Mercer
AMA Delegates	1 yeor	Jan. 1977-Dec. 1977	[b]James S. Todd, M.D. Bergen
	2 years	Jan. 1977-Dec. 1978	George L. Benz, M.D. Essex
	2 years	Jan. 1977-Dec. 1978	Frank J. Hughes, M.D. Camden
	2 years	Jan. 1977-Dec. 1978	[c]John F. Kustrup, M.D. Mercer
	2 years	Jan. 1977-Dec. 1978	Emanuel M. Satulsky, M.D. Union
	2 years	Jon. 1977-Dec. 1978	Robert E. Verdon, M.D. Bergen
AMA Alternate Delegates	1 year	Jan. 1977-Dec. 1977	[b]Howord D. Slobodien Middlesex
	2 yeors	Jan. 1977-Dec. 1978	John J. Bedrick, M.D. Hudson
	2 years	Jan. 1977-Dec. 1978	Karl T. Franzoni, M.D. Mercer
	2 years	Jan. 1977-Dec. 1978	Henry J. Mineur, M.D. Union
	2 years	Jan. 1977-Dec. 1978	Myles C. Morrison, Jr., M.D. Morris
Delegates and Alternate Delegotes to Other States			
New York:			
Delegate	1 year	1977 Annual Meeting	Albert F. Moriconi, M.D. Mercer
Alternate	1 year	1977 Annual Meeting	Josiah C. McCracken, Jr., M.D. Atlantic
Connecticut:			
Delegate	1 year	1977 Annuol Meeting	Edward G. Bourns, M.D. Union
Alternate	1 year	1977 Annual Meeting	Gastone A. Milano, M.D. Atlantic
Administrative Councils			
Legislation			
2nd District	3 years	June 1976-June 1979	John J. Crosby, Jr., M.D. Hudson
3rd District	3 years	June 1976-June 1979	Leon A. Froser, M.D. Mercer
Medical Services			
2nd District	3 yeors	June 1976-June 1979	James S. Todd, M.D. Bergen
3rd District	3 yeors	June 1976-June 1979	Frank Campo, M.D. Mercer

[b]Appointed by Board to serve until 1976 House election
[c]Does not wish to be re-elected

Mental Health			
4th District	3 years	June 1976-June 1979	[d]Edward A. Schauer, M.D. Manmauth
5th District	3 years	June 1976-June 1979	[d]Miles E. Drake, M.D. Cumberland
Public Health			
2nd District	3 years	June 1976-June 1979	Kendrick P. Lance, M.D. Passaic
3rd District	3 years	June 1976-June 1979	Thomas F. McLaughlin, M.D. Middlesex
Public Relatians			
3rd District	3 years	June 1976-June 1979	Haward D. Slabadien, M.D. Middlesex
6th Member	3 years	June 1976-June 1979	Francis X. Keeley, M.D. Camden
Standing Cammittees			
Annual Meeting	3 years	June 1976-June 1979	Rabert Brill, M.D. Passaic
Finance and Budget	3 years	June 1976-June 1979	[e]Barry M. Katler, M.D. Middlesex
Medical Defense and Insurance	3 years	June 1976-June 1979	Anthany P. DeSpirita, M.D. Manmouth
Medical Educatian	3 years	June 1976-June 1979	Frank C. Snape, M.D. Hunterdan
Publicatian	3 years	June 1976-June 1979	Daniel B. Rath, M.D. Bergen
Woman's Auxiliary Advisary	3 years	June 1976-June 1979	Alexander D. Kavacs, M.D. Union

[d]Ineligible, having served three cansecutive terms
[e]Must be a member af 1976 Hause af Delegates

1976 Annual Meeting

MOTION PICTURE THEATER

Saturday, June 5	2 p.m.
Sunday, June 6	10 a.m. and 2 p.m.
Manday, June 7	10 a.m. and 2 p.m.

Film pragram presented through the caurtesy and caaperatian af Rache Labaratanies, Divisian af Hoffman-LaRache, Inc., Nutley

Saturday, June 5

2:00 p.m. — Catheter Care and Use

Presented thraugh the caurtesy af Eatan Labaratanies

2:15 p.m. — South of Waldeyers: The Physiology of Micturition

Presented thraugh the caurtesy af Eatan Labaratanies

2:35 p.m. — Physical Examination of the Newborn

Presented through the courtesy of Pfizer Loboratories

3:10 p.m. — Urinary Obstruction in the Elderly Male

Presented through the courtesy of Pfizer Loborotories

3:40 p.m. — Normal and Abnormal Platelets

Presented through the courtesy of E. R. Squibb & Sons, Inc.

Sunday, June 6

10:00 a.m. — Early Plastic Repair of Finger Tip Injuries in Children

Presented through the courtesy of Eaton Loboratories

10:30 a.m. — Dermabrasion: A Surgical Technique for Improvement of Skin Disfigurements

Presented through the courtesy of Eoton Loborotories

10:45 a.m. — Chronic Obstructive Respiratory Disease

Presented through the courtesy of Pfizer Loborotories

11:25 a.m. — Cerebral Vascular Disease

Presented through the courtesy of E. R. Squibb & Sons, Inc.

2:00 p.m. — The Management of Severe Burns in Children

Presented through the courtesy of Eoton Loborotories

2:25 p.m. — Complete Vaginal Repair — A Simplified Approach

Presented through the courtesy of Eoton Loborotories

2:45 p.m. — Enteral Hyperalimentation: Techniques of Intubation of Fine Feeding Tubes

Presented through the courtesy of Eoton Loboratories

3:00 p.m. — Huntington's Disease

Presented through the courtesy of Eoton Laboratories

3:15 p.m. — Clinical, Physiological, and Functional Consequences of Spasticity

Presented through the courtesy of Eaton Loborotories

3:35 p.m. — Implications of Hyperglycemia

Presented through the courtesy of Pfizer Loborotories

Monday, June 7

10:00 a.m. — Thermal Wilderness

Presented through the courtesy of Associotion Films

10:30 a.m. — Antihyper Epidemic Therapy

Presented through the courtesy of Ayerst Loborotories

10:55 a.m. — Management of Alcohol Dependency

Presented through the courtesy of Ayerst Loborotories

11:30 a.m. — Chronic Obstructive Lung Disease

Presented through the courtesy of Roerig Div., Pfizer, Inc.

2:00 p.m. — Recognition and Management of Skin Lesions

Presented through the courtesy of Ayerst Loborotories

2:30 p.m. — Cinegastroscopy with the Fiberscope: Aid to Diagnosis of Gastric Lesions

Presented through the courtesy of Ayerst Loborotories

2:50 p.m. — Treatment of Acute Schizophrenia

Presented through the courtesy of Roerig Div., Pfizer, Inc.

3:25 p.m. — Treatment of Severe Gram-Negative Infections

Presented through the courtesy of Roerig Div., Pfizer, Inc.

SPEAKERS

Abruzzo, John L., M.D., Philodelphio
Anevlavis, E. S., M.D., Morristown

Brookler, Kenneth H., M.D., Rye, N.Y.
Byrne, Brendon T., The Honoroble
Governor of New Jersey, Trenton

Chorles, Seymour, M.D., Nework
Chatham, Lois R., Ph.D., Rockville, Md.
Chidsey, Richord A., M.D., Cherry Hill
Clowes, George H. A., Jr., M.D. Boston
Cook, Stuort D., M.D., West Oronge
Cormon, Marvin L., M.D., Boston

Danzig, Leonord S., M.D., Philodelphio Dovis, John H., M.D., Burlington, Vt.
Dovis, Williom J., M.D., New York
Devoneson, Mono, M.D., Nework
Devine, Chorles J., Jr., M.D., Norfolk, Vo.
DiMorino, A. J., M.D., Woodbury
Dobson, Richord L., M.D., Buffolo
Dolon, Jerome A., M.D., Jersey City
Dressner, Ivon R., M.D., Eost Oronge
Dreifus, Leonord S., M.D., Philodelphio
DuPont, Robert, M.D., Rockville, Md.

Feldmon, Bernord R., M.D., New York
Fielding, J. Williom, M.D., New York
Finnegon, Loretto P., M.D., Philodelphio
Fisher, Michoel, M.D., Bronx
Foster, James, B.S., Nework
Frayer, William, M.D., Philodelphio
Friedmon, Morton, M.D., Millburn

Golen, Noel D., M.D., Englewood
Gordom, Jomes E. D., M.D., Millville
Gingerelli, Fronk, M.D., Hockensock
Gocke, Dovid, M.D., Piscotawoy
Gould, Kenneth S., M.D., Princeton
Green, Robert E., M.D., Moplewood

Hertz, Rolph E. L., M.D., New York
Hirsch, Poul J., M.D., Somerville
Hirsch, Stuort A., M.D., Somerville
Horton, Chorles E., Norfolk, Vo.
Hymowitz, Normon, Ph.D., Nework

Jocobs, Fred M., M.D., Millburn

Kopilo, Rajendro, M.D., Nework

Keotes, Edwin, M.D., Philodelphia
Ketyer, Sidney, M.D., Elizobeth
Kling, Arthur, M.D., Piscotowoy

Losser, Normon, Ph.D., Newark
Lovenhor, Morvin, Ph.D., Nework
Lozoro, Eric J., M.D., Nework
Leevy, Corroll, M.D., Nework
Lott, Jomes, M.D., Ploinfield
Lourio, Donold B., M.D., Nework

Mongiolo, Stelio, M.D., Morristown
Moson, Robert, M.D., College Pork, Md.
Meod, Philip, M.D., Burlington, Vt.
McGuire, John J., M.D., Nework
Mervine, Thomos B., M.D., Woodbury
Morgonroth, Joel, M.D., Philodelphio
Morrow, Louro E., M.D., Possoic
Murphree, Henry B. S., Jr., M.D., Green Brook

Nojem, G. Rezo, M.D., Nework

Porrish, John A., M.D., Boston
Porrott, Mox, M.D., Chicogo
Podell, Richord V., M.D., Summit
Popkin, Arnold, M.D., Hightstown
Poplicoff, Leonord D., M.D., Princeton

Quinones, Mork, Ph.D., Nework

Robhon, Nothon B., M.D., New York
Rickert, Robert R., M.D., Livingston
Riley, Dovid J., M.D., Piscotowoy
Ronis, Mox, M.D., Philodelphio
Rush, Benjomin F., Jr., M.D., Nework
Russo, Richord J., M.S.P.H., Trenton

Schneider, D. Jean, M.S.W., Nework
Seriff, Nothon S., M.D., Jomoico, N.Y.
Smith, Leon G., M.D., Nework
Sofianides, Thomos, M.D., Hackensack
Spoeth, George, M.D., Philodelphio
Steklis, Horst D., M.D., Piscotowoy

Thind, Inderjit S., M.D., Newark
Tourtellotte, Chorles C., M.D., Philadelphio

Weinburg, Somuel, M.D., Bethpage, N.Y.
Weinstein, Michoel, M.D., Ploinfield

Zozonis, George A., M.D., Chothom

1976 Annual Meeting

SCIENTIFIC SECTION OFFICERS

Saturday through Tuesday
June 5-8

Cherry Hill
Hyatt House

Allergy

Chairman — Martan J. Seligman, M.D., Ridgewaad
Secretary — Michael A. Diamand, M.D., Livingstan

Anesthesiology

Chairman — Harald J. Cardner, Jr., M.D., Mantvale
Secretary — W. Alan Wright, M.D., Mantclair

Cardiovascular Diseases

Chairman — Stelia Mangiala, M.D., Marristawn
Secretary — Harry A. Raselle, M.D., Englewaad

Chest Diseases

Chairman — J. W. Sakalawski, Jr., M.D., Haddanfield
Secretary — Jack H. Dadaian, M.D., Glen Ridge

Clinical Pathology

Chairman — S. V. D. Chandler, M.D., Samerville
Secretary — Lester Kiefer, M.D., Perth Amboy

Dermatology

Chairman — Paul A. Passick, M.D., Westwaad
Secretary — Rabert M. Fischbein, M.D., Livingstan

Emergency Medicine

Chairman — James E. Gearge, M.D., Waadbury
Secretary — R. Winfield Betts, M.D., Mt. Hally

Family Practice

Chairman — Seymaur Taffet, M.D., Blaamfield
Secretary — Daniel C. Keesee, M.D., Flarham Park

Gastroenterology and Proctology

Chairman — Klaus J. H. Meckeler, M.D., Samerville
Secretary — Raymand F. Crystal, M.D., Marristawn

Medicine

Chairman — Frank J. Malta, M.D., Tams River
Secretary — Leanard S. Danzig, M.D., Red Bank

Neurosurgery and Neurology

Chairman — William Sagen, M.D., Trentan

Obstetrics and Gynecology

Chairman — Rabert A. Haines, M.D., Camden
Secretary — Jerame A. Dalan, M.D., Jersey City

Ophthalmology

Chairman — Arnald B. Papkin, M.D., Hightstawn
Secretary — Malcalm H. Blach, M.D., Marristawn

Orthopaedic Surgery

Chairman — Kenneth S. Klein, M.D., New Brunswick
Secretary — Rudolph C. Dangelmajer, M.D., Summit

Otolaryngology

Chairman — Mark Levey, M.D., Livingstan

Pediatrics

Chairman — Frank C. Vagt, M.D., Blaamfield
Secretary — Rager B. Kane, M.D., Daver

Physical Medicine and Rehabilitation

Chairman — Philip Brien, M.D., W. Orange
Secretary — Richard A. Chidsey, M.D., Cherry Hill

Plastic and Reconstructive Surgery

Chairman — Rabert Briggs, M.D., Livingstan
Secretary — Jerame Spivack, M.D., Mauntainside

Psychiatry

Chairman — Laura E. Morraw, M.D., Passaic
Secretary — Martan Friedman, M.D., Millburn

Radiology

Chairman — Daniel S. Cukier, M.D., Hackensack
Secretary — Rager A. Berg, M.D., Marristawn

Rheumatism

Chairman — William E. Ryan, M.D., Trentan
Secretary — Lauis G. Basca, M.D., Passaic

Surgery

Chairman — Lauis M. DelGuercia, M.D., Livingstan
Secretary — Jahn H. Landar, M.D., Green Braak

Urology

Chairman — Rabert B. Ambrase, M.D., Marristawn
Secretary — Truman D. Bayes, M.D., Plainfield

1976 Annual Meeting

SCIENTIFIC PROGRAM

Sunday, June 6
Monday, June 7

AMA Cotegory I ond
MSNJ-CME Accredited

Scientific Section Sessions

All sessions acceptable for Category I, AMA Accreditation toward the Physician's Recognition Award and MSNJ's CME Program. Accreditation has been provided and credit records will be kept by the Academy of Medicine of New Jersey.

Sunday Morning, June 6

Allergy

(Cosponsored by New Jersey Allergy Society)

9:00 a.m. Coffee, Bagels and Lox, Buns

9:15 a.m. Pharmacology of Drugs Used in Treatment of Allergy
WILLIAM J. DAVIS, M.D., Director, Division of Allergy, Babies Hospital, Columbio-Presbyterion Medicol Center, New York

Theophylline which octs to increose cyclic AMP by inhibition of phosphodiesterose, ond beto 2 odrenergic ogents which increase cyclic AMP by stimuloting odenylote cyclose ore the mainstoys of asthmo theropy.

Theropy is usually begun with theophylline. Persistent symptoms with adequote theophylline levels (10-20 μg/ml) indicote the need for a beto 2 odrenergic ogent by oerosol or orolly as o supplement. Occosionolly patients will not tolerote theophylline in ony preporotion ond con be treoted with beto 2 adrenergic agents with success.

The future holds greot promise for improved ond safer beta 2 odrenergic ogents which will offer the physicion o more effective meons of treating asthmo. Inholed, non-absorbed corticosteroids offer great promise for omeliorotion of asthmo symptoms and reduction or discontinuation of orol steroids.

10:00 a.m. Immunotherapy
BERNARD R. FELDMAN, M.D., Associote Director, Division of Allergy, Bobies Hospitol, Columbio-Presbyterion Center, New York

For over sixty yeors, the clinicol proctice of immunotherapy (hyposensitization) hos been used for the treotment of ollergic conditions. Initiolly, this procedure wos performed in an empirical foshion without objective evaluation. With the development of modern immunologic techniques the entire concept of hyposensitizotion hos undergone criticol onolysis. The doto obtoined from these studies ond current recommendotions regarding immunotherapy will be reviewed.

11:00 a.m. Question and Answer Period

11:30 a.m. Business Meeting

11:45 a.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Governor's Conference

Saturday, June 5 8:30 a.m.

Primary and Secondary Prevention in Adult Medicine

CMDNJ President Bergen Presiding
Governor Byrne
AMA President Parrott
CMDNJ Faculty

Sunday Morning, June 6

Emergency Medicine

(Cosponsored by the New Jersey Chapter, Americon College of Emergency Physicians)

9:00 a.m. The Abdomen in the Emergency Department — A Gastroenterologist's View
A. J. DiMARINO, JR., M.D., Clinical Assistont Professor of Medicine, Hospitol of the University of Pennsylvonio, Philadelphio; ond Chief of the Division of Gostroenterology, Underwood Hospitol, Woodbury

The emergency deportment physicion ond gostroenterologist hove mutuol interest in two mojor oreas: (1) the diognosis ond initiol monogement of the ocute obdomen and (2) gostrointestinol bleeding.

The evaluoting physicion must decide whether o potient with on "ocute obdomen" represents o surgicol or medicol emergency. The differentiol diognosis of the medicol couses of the ocute abdomen will be discussed.

A major concern of the emergency physicion is to determine whether gostrointestinol bleeding hos occurred ot oll. Twenty percent of oll patients brought to the emergency deportment becouse of supposed gostrointestinol bleeding hove octuolly not bled ot oll. The differentiol diognosis ond relotive incidences of the couses of gostrointestinal bleeding will be discussed. Advoncement in endoscopic technique ond equipment hove oided in the prompt diognosis ond manogement of gostrointestinol bleeding.

10:00 a.m. The Abdomen in the Emergency Department — A Surgeon's View
THOMAS B. MERVINE, M.D., Clinicol Professor of Surgery, Jefferson Medicol College, Philodelphio; and Attending in Surgery, Underwood Memoriol Hospitol, Woodbury

Stress will be loid on eorly diagnosis of the common surgicol emergencies thot ore seen in the emergency room. In oddition to discussing the troditionol eorly diagnostic symptoms ond signs from on onotomical ond physiologicol view, the newer ospects of diagnostic x-roy ond porocentesis will be discussed.

Also the diognosis ond monogement of closed injuries of the obdomen, secondory to crush injuries, os well os troditionol gunshot wounds ond stob wounds will be discussed.

11:00 a.m. Discussion

11:30 a.m. Business Meeting

11:45 a.m. Visit to Exhibits

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12 noon Luncheon — New Jersey Chapter, American College of Emergency Physicians
Reservotions: R. E. Schwoeble, M.D.
19 Droke Rood
Mendhom 07945

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Sunday Morning, June 6

Otolaryngology

(Cosponsored by New Jersey Acodemy of Ophthalmology ond Otolaryngology)

9:00 a.m. Symposium on Recent Developments in Otoneurology Computerized Axial Tomography of the Temporal Bone
IVAN R. DRESSNER, M.D., Assistont Clinicol Professor of Neurology, CMDNJ—New Jersey Medicol School, Nework; ond Neurologist, St. Bornobos Medical Center, Livingston

Summory not received

9:30 a.m. Electronystagmography in Office Practice
MAX RONIS, M.D., Professor ond Choirmon, Deportment of Otoloryngology, Temple University Heolth Science Center, Philadelphio

It has become opporent over the last ten years thot electronystogmogrophy hos grown from on interesting research tool into o volued test for the evaluotion of the integrity of the vestibulor system and the identificotion of pothologies therein. This new study hos hod warront opplicotion in the offices of otoloryngologists ond in the post two or three yeors, the stondordization of the study ond the interpretotion of the results therefrom hove been greotly improved.

The experience thot we hove hod over the lost ten yeors, using electronystagmogrophy os on odjunct to the clinicol evoluotion of the potient with both ouditory os well os vestibulor disorders is presented here. Our technique for the use of both positional as well as bithermol vestibulor stimulotions is discussed and the long-term anolyses of the findings in conjunction with both the clinicol ond ouditory findings are presented.

The electronystogmogrophic testing procedure if properly corried out provides the procticing otoloryngologist with o tremendous fund of voluoble informotion in order to help him oscertain the problems his patients present with ond will, in oddition, ollow him to discriminote between those potients who hove true orgonic diseose from those who hove functionol or other non-orgonic diseose processes.

10:00 a.m. Stenosis of the Internal Auditory Canal—"Fact or Fiction"
KENNETH H. BROOKLER, M.D., Medical Coordinotor, Center for Communicotion Disorders, Lenox Hill Hospital, New York

Potients moy present themselves with signs ond symptoms which could be ottributed to ony one of severol pothologies in o spectrum ronging from acoustic neuromo to Meniere's diseose. The finding which is diognosticolly exclusive to one group of potients is o morkedly smoll internol ouditory conol demonstroted on x-roy. Stenosis of the internol ouditory conol is confirmed by posterior fossa myelogrophy. If vestibulor or ouditory symptoms worrant, the treotment is a middle craniol fosso decompression of the internol ouditory conol.

The focts of stenosis of the internol ouditory conol will be demonstroted, seporoting them from the hitherto fictionol ospects. This concept will be illustroted by cose reports.

10:30 a.m. Question and Answer Period

11:30 a.m. Business Meeting

11:45 a.m. Visit to Exhibits

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12 noon Luncheon — New Jersey Academy of Ophthalmology and Otolaryngology
Reservotions: M. S. Klein
c/o Eye Institute
15 South 9th Street
Nework 07107

Sunday Morning, June 6

Cardiovascular Diseases Family Practice Medicine

(Cosponsored by New Jersey Acodemy of Fomily Physicions ond New Jersey Society of Internol Medicine)

9:30 a.m. Life-Threatening Cardiac Arrhythmias — Diagnosis and Management
LEONARD S. DREIFUS, M.D., Professor of Medicine, Jefferson Medicol College; ond Chief, Department of Cardiology, Lonkenou Hospitol, Philodelphio

The most importont life-threatening orrhythmios ore those of occeleroted impulse formotion or tronsmission. Ventricular premature systoles ossocioted with long QT intervols or R on T phenomeno often leod to sustoined ropid ventriculor beoting or ventriculor fibrillotion. Atriol fibrillotion, when ossocioted with AV byposs trocts, moy also lead to ventriculor fibrillotion ond functionol cordioc orrest. The cordioc rhythms thot ore life-threotening must be treoted oggressively either with precordiol shock, or precordiol shock plus o phormocologic ond/or cordioc pocemoker program.

10:15 a.m. EKG Stress Testing in the Cardiologist's Office — Economy, Feasibility, and Precautions
LEONARD S. DANZIG, M.D., Attending Physicion, Riverview Hospitol, Red Bonk; ond Senior Instructor in Medicine, Hohnemonn Medicol College, Philodelphio

EKG stress testing (ETT) is very useful to: (1) Detect pre-clinicol coronory heort diseose, (2) Evoluote the potient with chest poin, (3) Assess cardioc reserve, (4) Detect cordioc orrhythmios, (5) Evoluote response to byposs surgery, drug therapy or on exercise progrom.

A very odequote EKG stress-testing loborotory con be equipped for as little os $6,500 or os much os $15,000. The methodology, feosibility ond sofety precoutions necessary for performing ETT's in the cordiologist's office will be discussed.

10:45 a.m. What To Do with A Positive Exercise Test?
JOEL MORGANROTH, M.D., Assistant Professor of Medicine, University of Pennsylvonio School of Medicine; ond Director, Electrocor-

dialagy and Exercise Physialagy Labarary, Hospital af the University of Pennsylvania, Philadelphia

Like ather nan-invasive tests in cardialagy practice, exercise testing has became an invaluable toal in recent years, and its uses ond limitatians are ropidly evalving. Exercise tests are indicated (1) far the detectian af accult caranary artery disease; (2) ta detect the presence and possible significonce af cardiac arrhythmias; and (3) ta determine abjectively the functianal capacity of on individual patient. Cantraversy has orisen os ta the usefulness af exercise testing ta detect occult coronary artery disease. Carrelotive studies af exercise tests and coranary arteriagraphy have revealed that, in the symptamatic patient, o pasitive exercise test (1 mm or mare ST segment depressian from the pasthyperventilatary standing baseline EKG) indicates on 80 ta 95 percent chance af the presence of caranary artery disease. A negative exercise test is falsely negative in 15 ta 25 percent of cases. In the asymptamatic individual, a pasitive exercise test is falsely pasitive in ane-half to twa-thirds of the cases but obviausly identifies a high-risk graup af patients. Patients in whom it is essential ta determine the state af the caranary ortery onatamy shauld underga caronary arteriagrophy. These include thase whose accupatians might be altered by such infarmatian (e.g., airplane pilats and in thase whase lifestyles moy be changed (e.g., vigaraus athletes).

11:20 a.m. Business Meeting

11:30 a.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I, MSNJ-CME, and AAFP

DINNER-DANCE

Monday, June 7, 1976

Entertainment

Cozy Morley Show

Dancing

Howard Reynolds Orchestra

(Tickets at Registration Desk)

Sunday Afternoon, June 6

Anesthesiology Medicine

(Caspansared by New Jersey State Society af Anesthesialagists and the Academy of Medicine af New Jersey)

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12 noon Luncheon — New Jersey State Society of Anesthesiologists
Reservations: A. L. Lucas, M.D.
8 Ames Place
Marristawn, 07960

1:00 p.m. Pathogenesis and Differentiation of Viral and Drug-Induced Hepatitis in the Postoperative Patient
CARROLL M. LEEVY, M.D., Prafessar and Acting Chairman, Department af Medicine, CMDNJ — New Jersey Medical Schaal, Newark

Summary nat received

1:50 p.m. Preventive Aspects of Blood, Blood Substitutes, and General Principles of Transmission of Serum Hepatitis
DAVID GOCKE, M.D., Chief af Immunolagy and Infectiaus Disease, CMDNJ — Rutgers Medical Schaal, Piscataway

Summary nat received

2:10 p.m. Endocrine Crises, Prevention and Treatment
THOMAS SOFIANIDES, M.D., Directar, Division of Endacrinology, Hackensack Haspital, Hackensack

Summary nat received

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Sunday Afternoon, June 6

Family Practice

(Cosponsored by New Jersey Academy of Family Physicians)

1:00 p.m. Cardiac Arrhythmias — A Self-Assessment and Educational Program
STELIO MANGIOLA, M.D., Clinical Assistant Professor of Medicine, CMDNJ — Rutgers Medical School, Piscataway; and Attending Cardiologist, Morristown Memorial Hospital, Morristown

Summary not received

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I, MSNJ-CME, and AAFP

Sunday Afternoon, June 6

Plastic and Reconstructive Surgery, Urology

(Cosponsored by New Jersey Society of Plastic and Reconstructive Surgery and New Jersey Society of Urology)

1:00 p.m. Symposium on Hypospadius, Peyronie's Diseases, and Genital Reconstruction
CHARLES E. HORTON, M.D., Professor of Plastic Surgery, Eastern Virginia Medical School, Norfolk, Virginia
CHARLES J. DEVINE, JR., M.D., Professor and Chairman, Department of Urology, Eastern Virginia Medical School; and Chief, Department of Urology, Medical Center Hospitals, Norfolk, Virginia

Summary not received

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Sunday Afternoon, June 6

Rheumatism

(Cosponsored by New Jersey Rheumatism Association)

1:00 p.m. Rheumatic Manifestations of Systemic Diseases
CHARLES D. TOURTELLOTTE, M.D., Professor of Medicine and Chairman, Section on Rheumatology, Temple University School of Medicine, Philadelphia

Summary not received

2:00 p.m. Spectrum of Systemic Vasculitis
JOHN L. ABRUZZO, M.D., Professor of Medicine, Jefferson Medical College, Philadelphia

Systemic vasculitis is a spectrum of chemical conditions having in common vascular inflammation characterized by a necrotizing process rich in polymorphonuclear leukocytes, a granulomatous process in which mononuclear cells predominate, or elements of both.

While infections, foreign proteins, and drugs have been implicated as causal agents, these represent a very small percentage of vasculitis, and causative agents have not been identified in the vast majority of cases. More recent evidence suggests that circulating immune complexes may result in inflammation and vascular injury will be presented, and the implications of such a process on clinical diagnosis and therapy will be reviewed.

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

JEMPAC BREAKFAST
Monday, June 7, 1976
7:30 a.m.

Sunday Afternoon, June 6

Ophthalmology

(Cospansored by New Jersey Acodemy of Ophtholmology ond Otolaryngolagy)

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12 noon Luncheon — New Jersey Academy of Ophthalmology and Otolaryngology
Reservotions: M. S. Klein
c/o Eye Institute
15 South 9th Street
Nework 07107

1:00 p.m. Indications for Surgery — A Reappraisal

Panel Discussion:
Moderotor: Arnold B. Popkin, M.D.

Ponelists:
WILLIAM FRAYER, M.D., Acting Choirmon, Department af Ophtholmology, Scheie Eye Institute of the University of Pennsylvonio School af Medicine, Philodelphia

Summory nat received

EDWIN KEATES, M.D., Associote Prafessor of Ophtholmology, Jefferson Medicol College

Summory not received

GEORGE J. SPAETH, M.D., Professor of Ophthalmology, Jefferson Medicol College; ond Director, Glaucomo Service, Wills Eye Haspitol, Philodelphio

Just when is o cotoract extroction indicated? The tremendous diversity of visuol needs fram the potient's point of view, the voriety in the disease itself, and the wide orroy of surgicol techniques thot ore naw avoiloble moke it necessory to re-exomine this question most thoughtfully. Especiolly are the indications for surgery ond the choice of the porticulor surgicol technique problems, when there ore oddition al complicating foctors such os the presence of gloucomo. Recent studies indicote thot following cotaroct extroction, there is o morked rise in introoculor pressure in mony individuols wha da not hove gloucoma. In those who do hove glaucomo, this rise con be so morked os to couse visual lass in the immediate post-operotive period. This foctor and others will be elaboroted on in the discussion of the proper indicotions for cotoract extroction in 1976.

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Monday Morning, June 7

Dermatology

(Cosponsored by New Jersey Dermatologic Society)

9:00 a.m. Current Concepts of Photochemotherapy
JOHN A. PARRISH, M.D., Associote Professar of Dermotology, Horvord Medicol School ond Mossochusetts Generol Hospitol, Boston

Summary not received

9:45 a.m. Cutaneous Aspects of Connective Tissue Disease
NATHAN B. RABHAN, M.D., Clinicol Assistont Professor of Dermotology, NYU School of Medicine, New York

Selected ospects of recent odvonces in diognosis and theropy of connective tissue diseose will be discussed:

(o) Recent experiences with potients hoving bullous systemic lupus erythemotosis.

(b) The "negative" relationship between the clinicol discoid lupus erythemotous lesion and lupus renol diseose.

(c) Summory of clinicol loborotory tests ond treotment results in the mixed connective tissue syndrome of Shorp.

(d) Intro-orteriol reserpine injection far severe Roynoud's phenomenon and digitol infection in progressive systemic sclerosis.

(e) Topicol DMSO theropy for digitol ulcerotion ond acrol sclerosis in progressive systemic sclerosis.

10:30 a.m. Diagnosis of the Acutely Ill Patient with Fever and a Rash
MICHAEL FISHER, M.D., Assaciote Professor of Medicine, Albert Einstein College of Medicine, Branx, New York

The octively ill potient with fever ond o rosh presents o diognostic problem for which the dermatologist is often consulted. However, in certain coses such os septicemio, it is important thot o ropid diognosis be made by the primory physician so that proper life-soving theropy moy be instituted. On the bosis of the type of lesion and other chorocteristic feotures, the main differentiol diagnostic possibilities will be presented.

11:15 a.m. Interesting Facets of Pediatric Dermatology
SAMUEL WEINBERG, M.D., Associote Clinicol Professor of Dermotology, NYU School of Medicine, New York

Summory not received

12 noon Business Meeting

12:15 p.m. Visit to Exhibits

12:30 p.m. Luncheon-Meeting — New Jersey Dermatologic Society
Reservations: Paul A. Possick, M.D.
400 Old Hook Rood
Westwood 07675

Therapeutic Pearls — 1976
RICHARD L. DOBSON, M.D., Professor of Dermotology ond Choirmon, Deportment of Dermotology, SUNY, Buffolo

Summory not received

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

VISIT THE EXHIBITS

Informational
Scientific
Technical

Monday Morning, June 7

Obstetrics and Gynecology Surgery

(Cosponsored by New Jersey Chopter, Americon College of Surgeons, New Jersey Obstetricol ond Gynecologicol Society, CMDNJ — New Jersey Medicol School, Nework, ond CMDNJ — Rutgers Medicol School, Piscatoway)

Controversies in the Management of Abdominal Sepsis (A Questionnaire Course)

9:00 a.m. Introduction
BENJAMIN F. RUSH, JR., M.D., Johnson ond Johnson Professor ond Choirmon, Deportment of Surgery, CMDNJ — New Jersey Medicol School, Nework

9:15 a.m. Systemic and Metabolic Effects of Abdominal Sepsis
GEORGE H. A. CLOWES, JR., M.D., Clinicol Professor of Surgery, Horvord Medicol School; ond Director, Seors Surgicol Loborotory, Boston City Hospitol, Boston

Summary not received

9:45 a.m. Intra-Abdominal Catastrophies in Abdominal Sepsis
JOHN H. DAVIS, M.D., Professor ond Choirman, Department of Surgery, University of Vermont Medicol School; ond Surgeon-in-Chief, Medicol Center Hospitol, Burlington, Vermont

Summory not received

10:15 a.m. Coffee Break

10:45 a.m. Acute Gynecological Sepsis
PHILIP MEAD, M.D., Assistont Professor, Department of Obstetrics ond Gynecology, University of Vermont Medical School, Burlington, Vermont

Recent experimentol studies of pelvic peritonitis suggest thot it is o biphosic diseose, consisting of on initiol peritonitis stage with high mortolity, followed by o stoge of obscess formotion in survivors. Gromnegotive enteric bocilli ore the predominant orgonisms in the initial peritonitis stoge, while anaerobic bocteria dominote in the obscess stoge. The importonce of these concepts in preventing postoperative infection, obtaining meoningful culture specimens, ond choosing oppropriote ontibiotic therapy in gynecologic potients will be discussed.

11:15 a.m. Presentation of Responses to Questionnaire
ERIC J. LAZARO, M.D., Professor of Surgery, CMDNJ — New Jersey Medical School, Newark

Responses to a questionnaire on controversies in the management of abdominal sepsis that are of interest to general surgeons and to gynecologists will be presented. This questionnaire, which is circulated among physicians in New Jersey, focuses largely on practical issues concerning the management of patients with abdominal sepsis. Analyses of the results of the questionnaire will provide some insight into the status of practice in the State of New Jersey and will be utilized by the moderator to initiate discussion among the panelists at the meeting.

11:25 a.m. Panel Discussion
Moderator:
Benjamin F. Rush, Jr., M.D.
Panelists:
George H. A. Clowes, Jr., M.D.
John H. Davis, M.D.
Jerome A. Dolon, M.D.
Rajendra Kapila, M.D.
Philip Mead, M.D.
Leon Smith, M.D.

11:45 a.m. Business Meeting

12 noon Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Monday Morning, June 7

Orthopedic Surgery Radiology

(Cosponsored by New Jersey Orthopaedic Society and New Jersey Chapter, American College of Radiology

9:00 a.m. Arthrography of the Lateral Meniscus
FRANK GINGERELLI, M.D., Assistant Attending Radiologist, Poscack Valley Hospital, Westwood

The normal anatomy of the lateral meniscus, and its appearance on arthrography, is reviewed. A comparison of its peculiarities with those of the medial meniscus is discussed and the technique of double contrast arthrography is presented. Lateral meniscal tears are frequently atypical in their clinical appearance and often obscured by associated medial meniscal tears. Arthrography can greatly aid the clinician in arriving at this diagnosis and in making a more informed preoperative approisal possible.

9:45 a.m. The Atlantoaxial Joint
J. WILLIAM FIELDING, M.D., Clinical Professor of Orthopedic Surgery, College of Physicians and Surgeons, Columbia University; and Director, Orthopedic Surgery, St. Luke's Hospital, New York

The paper presents the atlantoaxial articulation, describing its development, its appearance in childhood, the relationship of this area to the spinal cord and vertebral arteries, and the types of trauma that can occur in this region, together with selected recommendations for treatment.

10:30 a.m. Coffee Break

10:45 a.m. Critical Review of X-ray Findings in 65 Patients with Infantile Hip Dysplasia
STUART A. HIRSCH, M.D., Attending Orthopedic Surgeon, Raritan Valley Hospital, Green Brook; and Clinical Assistant Professor of Orthopedic Surgery, CMDNJ — Rutgers Medical School, Piscataway
and
PAUL J. HIRSCH, M.D., Attending Orthopedic Surgeon, Raritan Valley Hospital, Green Brook

X-rays of 70 consecutive patients treated for infantile hip dysplasia are reviewed. X-ray was found unreliable in the newborn (defined here as those diagnosed in the hospital nursery), most often seeming "normal" and occasionally misleading the clinician into delaying treatment. At this stage, diagnosis is entirely on a clinical basis, and x-rays rarely are helpful. Subsequently, x-ray is a valuable aid in diagnosis, and in following progress. Increased acetabular angle has often been questioned as a reliable measure; however, it is indeed significant, when greater than 30°, after the newborn period. Confirmation of this radiologically is available. Other radiological manifestations are evaluated.

11:15 a.m. Bone Scanning of Benign and Malignant Disease
SIDNEY KETYER, M.D., Chief of Radiology, St. Elizabeth Medical Center, Elizabeth; and Clinical Associate Professor of Radiology, CMDNJ — New Jersey Medical School, Newark

The use of bone scanning in malignant and benign diseases will be discussed based on an extensive experience in a busy hospital practice.

12 noon Business Meeting

12:15 p.m. Visit to Exhibits

12:30 p.m. Luncheon — New Jersey Orthopaedic Society
Reservations: Paul J. Hirsch, M.D.
720 Highway 202
Somerville 08876

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Monday (All Day), June 7

Pediatrics
Psychiatry

(Cosponsored by American Academy of Pediatrics, New Jersey Chapter, American Psychiatric Association, New Jersey Psychoanalytic Society, Academy of Psychoanalysis, and New Jersey State Department of Health)

Symposium on the Addicting Scene

9:15 a.m. Welcoming Remarks
MR. RICHARD J. RUSSO, Assistant Commissioner, Alcohol, Narcotic and Drug Abuse, New Jersey Department of Health, Trenton

9:30 a.m. The Current Drug Scene
ROBERT DuPONT, M.D., Director, National Institute on Drug Abuse, Rockville, Maryland

Summary not received

10:00 a.m. The Current Alcohol Scene
LOIS R. CHATHAM, Ph.D., Director, Division of Special Treatment and Rehabilitation Programs, National Institute on Alcohol Abuse and Alcoholism, Rockville, Maryland

Summary not received

10:30 a.m. Seven-Year Longitudinal Study of Drug Scene and Its Treatment
DONALD B. LOURIA, M.D., Professor and Chairman, Department of Preventive Medicine and Community Health, CMDNJ — New Jersey Medical School, Newark

The Department of Preventive Medicine of the New Jersey Medical School has under its purview six major addiction rehabilitation programs. An extramural, computerized evaluation mechanism has been formulated that includes four components: (1) relation of retention in treatment to demographic and psychosocial data, (2) analysis of dropouts, (3) analysis of graduates, (4) assessment of process in each modality.

Thus far, some 4,000 addicts have been followed and their retention related in each program to twenty-five paired demographic and eight paired psychosocial variables. These identified in each of the programs (methadone maintenance, three therapeutic communities, two out-patient counseling programs) sub-groups that did better and subgroups that did worse. This type of evaluation begins to permit the matching of addicts to specific programs, permits each program to improve its results, and allows public monies to be expended most prudently.

11:00 a.m. Pre-and Post-Natal Effects of Drug Abuse
LORETTA P. FINNEGAN, M.D., Director of Nurseries, Philadelphia General Hospital; and Assistant Professor of Pediatrics, University of Pennsylvania School of Medicine, Philadelphia

Summary not received

11:30 a.m. Business Meeting

11:45 a.m. Visit to Exhibits

12 noon Luncheon Break

1:00 p.m. Symposium on the Addictive Process

Neuropharmacology of Ethyl Alcohol
HENRY B. S. MURPHREE, JR., M.D., Chief, Department of Psychiatry, Raritan Valley Hospital, Green Brook; and Professor of Psychiatry and Pharmacology, CMDNJ — Rutgers Medical School, Piscataway

The underlying reason of clinical importance for examining the neuropharmacology of alcohol is to try to understand why people drink, sometimes with compulsive regularity, sometimes to the extent of causing grievous damage to themselves or others. Much of what is known seems to be beside the point of understanding consumption of alcohol by humans and understanding the problems created thereby.

Commonly the actions of alcohol are thought to be the same as those of general anesthetics. This is true when very large doses are involved. But the actions of general anesthetics themselves are not well understood. Theories, from speculations about hydrophyllic-lipophyllic properties to the elegant clathrate hypothesis of Pauling, are at best persuasive but entirely unsubstantiated. Moreover, most people who drink alcohol do not drink to the point of anesthesia.

Physical dependence on alcohol occurs but only in a tiny proportion of people who drink. Escape from the withdrawal syndrome of delirium tremens therefore is not a usual reason why people drink alcohol.

Other effects to which less attention has been paid may play more important parts in the maintenance of alcohol consumption. These include catecholamine release, electrolyte derangements, and REM sleep disturbance. These may interact with many other factors, such as psychological and sociocultural, in the drinker to produce repetitive patterns of drinking.

1:20 p.m. Psychodynamic Aspects
NOEL GALEN, M.D., Attending Psychiatrist, Englewood Hospital, Englewood; and Clinical Associate Professor of Psychiatry, New York University, New York

A review of the significant literature on the pre-drug personality will be discussed followed by a delineation of the most commonly seen personality problems associated with drug abuse relating specifically to passivity, dependency, and the development of unfulfilled expectations. A discussion of the antimotivation syndrome associated with marijuana will be held.

KENNETH S. GOULD, M.D., Psychiatrist, Princeton Medical Center, Princeton, and Associate Clinical Professor, of Psychiatry, CMDNJ — Rutgers Medical School, Piscataway

Drug addiction continues to be a major problem in this country, with the gamut of drugs abused running from hard-type narcotics, through marijuana, hallucinogens, medicinals, and alcohol. While the manifest problem is the manufacture and distribution of such drugs, psychiatrists and other physicians need to understand as well as possible the reasons for such use. It would appear that there are two major contributing factors. One obviously is the ease of obtaining the drugs coupled with our culture's ready acceptance of such materials. What is central to the issue, however, is the constellation of intrapsychic conflicts of the individual which predispose him to such usage. As these conflicts are exacerbated by environmental stresses, symptoms are manifested in many ways, a prominent one being drug ingestion. Only by recognizing these inner conflicts and working them through can the personal and social ill of addiction be treated.

2:00 p.m. Discussion
Moderators:
Laura E. Marrow, M.D.
Morton Friedman, M.D.

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Monday Morning, June 7

Chest Diseases Family Practice Medicine

(Cosponsored by New Jersey Chapter, American College of Chest Physicians, New Jersey Academy of Family Physicians, and New Jersey Society of Internal Medicine)

9:30 a.m. Symposium on Adult Respiratory Distress Syndrome

Clinical Manifestations and Historical Review
NATHAN S. SERIFF, M.D., Professor of Medicine, SUNY, Stony Brook, New York; and Director, Division of Pulmonary Medicine, Queens Hospital Center, Queens, New York

Summary not received

10:00 a.m. Pathophysiology
DAVID J. RILEY, M.D., Assistant Professor of Medicine, CMDNJ — Rutgers Medical School, Piscataway

Summary not received

10:30 a.m. Management
FRED M. JACOBS, M.D., Chief, Chest Services and Co-Director, Intensive Care Unit, St. Barnabas Medical Center, Livingston; and Clinical Assistant Professor of Medicine, CMDNJ — New Jersey Medical School, Newark

Adult respiratory distress syndrome, ARDS, requires prompt intensive therapy. The criteria for respiratory support will be discussed as well as a systematic basis for treatment. Emphasis will be placed on the use of the volume-cycled ventilator with special attention to positive and expiratory pressure (PEEP). The use of PEEP is the major advance in therapy of ARDS and is mainly responsible for the reduction in the mortality of this syndrome.

Other modalities of therapy will be examined including the use of corticosteroids, heparin, and antibiotics. The need for special monitoring techniques to determine the efficacy of therapy as well as to detect early signs of complications will be outlined. They will include measurements of optimum oxygen transport (best PEEP) and fluid and electrolyte balance. Pneumothorax, gastrointestinal bleeding, and superinfection are complications that will be described.

11:00 a.m. Discussion

11:30 a.m. Business Meeting

11:45 a.m. Visit to Exhibits

12:30 p.m. Luncheon — New Jersey Chapter, American College of Chest Physicians

Annual Selman Waksman Lecture

EDMUND D. PELLEGRINO, M.D., Professor of Medicine, Yale-New Haven Medical Center

Reservations: E. S. Paisley, M.D., 501 White Horse Pike Haddon Heights 08035

Hour-for-Hour Credit
AMA Category I, MSNJ-CME, and AAFP

VISIT THE EXHIBITS

Monday Afternoon, June 7

Gastroenterology and Proctology Clinical Pathology

(Cosponsored by New Jersey Gastroenterological Society, New Jersey Society of Colon and Rectal Surgeons, and New Jersey Society of Pathologists)

1:00 p.m. What Are the Precancerous Changes in the Large Intestine?
ROBERT R. RICKERT, M.D., Co-Director, Department of Pathology, St. Barnabas Medical Center, Livingston; and Adjunct Associate Professor of Pathology, College of Physicians and Surgeons, Columbia University, New York

The evolution of malignant neoplasms of the large bowel mucosa has been difficult to document. Precancerous changes have been clearly defined in cases of long-standing ulcerative colitis but this pathway accounts for only a minimal proportion of large bowel cancer. Evidence is presented which supports the evolution of large bowel cancer from preexistent adenomatous lesions. While most of these are polypoid, not all large bowel "polyps" are adenomatous. The differential features of adenomatous and non-adenomatous polyps are described and their significance discussed.

1:30 p.m. Detection of Unsuspected Lesions of the Colon and Rectum
MARVIN L. CORMAN, M.D., Section of Colon and Rectal Surgery, Lahey Clinical Foundation; and Clinical Instructor in Surgery, Harvard Medical School, Boston

Carcinoma of the colon and rectum is the most common visceral malignancy in the United States today. The American Cancer Society estimates that in 1976, 99,000 new cases will be diagnosed. The key to improving survival is early diagnosis. Proctosigmoidoscopy has long been considered the most important screening procedure. Colonoscopy is a newer instrument to aid the physician in his search. When should one perform these procedures, and what is the yield? These are the questions which are addressed in this presentation.

2:00 p.m. Survival Experience in Detected Asymptomatic Carcinoma of the Large Bowel
RALPH E. L. HERTZ, M.D., Associate Attending Surgeon, Memorial Hospital; and Clinical Instructor in

Surgery, Carnell Medical College, New Yark

Summary nat received

2:20 p.m. Treatment of Premalignant Rectal Tumors
JAMES LOTT, M.D. and MICHAEL WEINSTEIN, M.D. Residents in Calan and Rectal Surgery, Muhlenberg Haspital, Plainfield

The true incidence of malignant degeneratian in villaus adenamas is estimated ta be 50 ta 70 percent. While the malignant patential af these lesians is well knawn it is still uncertain what treatment is best. All patients in this series received their initial treatment in the haspital. The methads af treatment included electrocaagulatian, lacal excisian, ar radical resectian. The lesians accurred with equal frequency between males and females. Eighty-eight percent af the patients were 51 years ald ar alder; 38 percent af the group presented with bleeding and 34 percent with watery diarrhea ar mucus. When the size af the lesian was campared ta the presenting symptams af diarrhea ar bleeding, na carrelatian was found.

The majarity af patients in this series were treated by electracaagulatian. The in-hospital stay was the same as that af patients treated by lacal excisian. The averall recurrence rate was 28 percent far all histalagical types. The recurrence rate far thase treated by electracaagulatian was 26 percent. Camplicatians af electracoagulotian were fever (40 percent), bleeding requiring transfusian (4 percent), perfaratian af the rectum (8 percent), and stricture (24 percent).

Villaus adenoma with ar withaut atypia, and perhaps facal carcinoma, can be treated with less thon radical therapy and acceptable marbidity and martality. Far extensive lesions involving mare than 50 percent af the rectal wall, lacal excisian may nat be feasible. In these cases electracaagulatian remains the anly viable option ta radical surgical treatment.

2:40 p.m. Questions and Answers

2:50 p.m. Business Meeting

3:00 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Inaugural Reception
June 6 — 6:30 p.m.
Inaugural Dinner
June 6 — 8 p.m.

Monday Afternoon, June 7

Neurosurgery and Neurology

(Caspansared by New Jersey Neurasurgical Society and Neuralagical Assaciatian af New Jersey)

1:00 p.m. First Experience with Computerized Axial Tomography in New Jersey
ROBERT E. GREEN, M.D., Chief, Divisian af Neurasurgery, St. Barnabas Medical Center, Livingstan

The first EMI brain scanner in New Jersey began aperatians in early 1975, in Sauth Oronge (CATEC). By the time af this presentatian, aver 3500 patients will have been scanned.

Scans are dane without ar with IV radia-apaques. Plain scans shaw the skull, ventricular system, surface markings, and mast brain parenchymal lesians. They are autstanding in revealing hydracephalus, atraphy, and same brain lesians, largely replacing pneumaencephalagraphy.

With IV cantrast, they are particularly helpful in diagnosing cerebral tumors, bath primary and metastatic, and af same value in arteria-venaus malfarmations.

Statistical data will be presented.

1:30 p.m. Neural Substrate for Affiliative Behavior in Non-Human Primates
ARTHUR KLING, M.D., Prafessar af Psychiatry, and HORST D. STEKLIS, M.D., CMDNJ — Rutgers Medical Schaal, Piscataway

This paper will summarize a series af experiments canducted aver the past seven years an the relatianship between lacalized brain lesians ond sacial behaviar in a variety af species af nan-human primates. These experiments have been carried aut in labaratary, large enclasure, and free-ranging settings. Carrelatian af the behaviaral changes with previaus wark an cagnative functian, electraphysialagy, and behaviar af individual subjects will be described. We have cancluded that three neural structures: the orbital frontal cartex, the amygdalaid nucleus, ond anteriar tip af the temparal labe, canstitute a graup af structures which are essential far the maintenance af sacial bandings. Other structures lacated bath in limbic and nanlimbic areas da nat interfere either with the sacial dynamics ar with the affiliative behaviar in labaratary and free-ranging graups. Neural mechanisms by which these structures interfere with the maintenance af sacial bandings will be discussed.

2:00 p.m. Guillain Barré Syndrome or Acute Idiopathic Polyneuropathy
STUART D. COOK, M.D., Chief, Neurology Services, Veterons Administration Hospital, East Oronge

Summory not received

2:30 p.m. Diabetes Insipidus Following Inappropriate ADH SEcretion Syndrome
E. S. ANEVLAVIS, M.D., Resident in Internal Medicine, Morristown Memoriol Hospitol, Morristown
and
GEORGE A. ZAZANIS, M.D., Attending in Neurology, Morristown Memoriol Hospital, Morristown; and Clinical Associote Professor, Neurosurgery, CMDNJ — Rutgers Medicol School, Piscotowoy

Two patients are reported who developed inoppropriote ADH secretion syndrome ofter head injury. The diagnosis wos bosed on low serum sodium ond osmololity, greoter tonicity of the urine, and obsence of renol odrenol, cordioc, ond hepotic disease.

Approximotely one week following the syndrome of inappropriote ADH secretion (SIADH) both potients developed polyurio with extremely dilute urine. Tonicity of the urine did not increose during dehydrotion test; however, both potients responded to pitressin, confirming the diagnosis of diobetes insipidus syndrome (D.I.)

Possible pothogenetic mechonisms regarding this unusuol sequence of events (D.I. following SIADH) ore briefly discussed.

3:00 p.m. Business Meeting

3:15 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

Convention Revelry

Saturday, May 31

Reception/Dinner

Entertainment — **Cozy Morley Show**
Dancing — **Howard Reynolds Orchestra**

Monday Afternoon, June 7

Physical Medicine and Rehabilitation

(Cosponsored by New Jersey Society of Physicol Medicine ond Rehobilitotion)

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12 noon Luncheon — New Jersey Society of Physical Medicine and Rehabilitation
Reservotions: Philip Brien, M.D.
73 Stonford Avenue
West Oronge, 07052

1:00 p.m. An Overview of Rheumatoid Disease
CHARLES D. TOURTELLOTTE, M.D., Professor of Medicine ond Choirmon, Section of Rheumatology, Temple University School of Medicine ond Hospitol, Philodelphio

Summory not received

1:30 p.m. Physician Medical Management of Rheumatoid Disease
LEONARD D. POLICOFF, M.D., Director of Rehobilitotion Medicine, Somerset Hospitol, Somerville; ond Professor of Clinicol Physician Medicine ond Rehobilitotion, University of Pennsylvonio School of Medicine, Philadelphia
ond
RICHARD A. CHIDSEY, M.D., Associote Professor, Director, Rehobilitotion Medicine, Hohnemann Medicol College, Philodelphio; ond St. Froncis Medical Center, Trenton

Rehobilitotion medicine is on integral component in the effective monogement of the rheumotic disorders. It concerns itself with the relief of pain, the prevention of deformity, the preservation of existing function, ond the restorotion of lost function. This paper will discuss oppropriate treatment programs, for the most useful physical modalities, orthoses ond adaptive devices.

2:45 p.m. Business Meeting

3:00 p.m. Visit to Exhibits

Hour-for-Hour Credit
AMA Category I and MSNJ-CME

1976 Annual Meeting

INFORMATIONAL EXHIBITS

Saturday, June 5 — 12 noon to 5 p.m.
Sunday, June 6 — 9 a.m. to 5 p.m.
Monday, June 7 — 9 a.m. to 5 p.m.

New Jersey Foundation for Health Care Evaluation I-201

Trenton

The purpose of this exhibit is to define the role and accomplishments of the New Jersey Foundation for Health Care Evaluation and the Statewide PSRO Support Center.

Medical Education in New Jersey I-202

CMDNJ — New Jersey Medical School, Newark; and
CMDNJ — Rutgers Medical School, Piscataway

This exhibit will provide New Jersey's medical community with current information about the state's only medical college — its programs, admissions, research, and curriculum — and its various units, which include the CMDNJ-Graduate School of Biomedical Sciences, programs in the allied health professions, continuing professional education, and consumer health education.

Venereal Diseases I-203

Venereal Disease Service Organization, East Orange

Primary purposes of the exhibit are to acquaint the practicing physician with current feelings, attitudes, and desires of his patients concerning venereal diseases, and to disseminate technical information on diagnostic and treatment methods of venereal diseases.

New Jersey Affiliate, American Diabetes Association I-204

Hackensack

Information will be available relating to diabetes mellitus and programs of the New Jersey Affiliate, American Diabetes Association.

Drug Abuse in New Jersey Alcoholism in New Jersey I-205

MSNJ's Committee on Alcoholism and Drug Abuse, Trenton

Current information on prevalence of drug abuse problems will be presented. Location of drug abuse treatment programs throughout the State of New Jersey will be listed and copies of the list will be available for distribution.

Society for the Relief of Widows and Orphans of Medical Men of New Jersey I-206

Hopewell

"Widows and Orphans," initiated in 1882, is a voluntary non-profit organization, founded and continuously operated by physicians of New Jersey to provide for the welfare of widows and children of deceased member-physicians.

Academy of Medicine of New Jersey I-207

Union

The exhibit will outline the activities of the Academy of Medicine in providing continuing education programs for the physicians of New Jersey during the past year.

Home Health Agency Assembly of New Jersey I-208

Westfield

The exhibit will consist of (1) two panels depicting services of a home health agency, and (2) pictures mounted on panels showing services rendered.

Disability Evaluation I-209

Division of Disability Determinations,
Department of Labor and Industry, Newark

The exhibit describes important aspects of disability examination under the Social Security regulations.

H.E.A.L. I-210

Health Economic and Advancement League, Paterson

H.E.A.L. is a unique evening pediatric center sponsored by the three hospitals of Paterson, the City of Paterson, and with the cooperation of the Passaic County Medical Society. HEAL has been responsible for providing non-emergent care to the community for six years, thereby alleviating the load on the three hospital emergency rooms.

Passaic Valley Professional Standards Review Organization (PSRO) I-211

Wayne

Quality care and PSRO peer review system in progress.

1976 Annual Meeting

SCIENTIFIC EXHIBITS

Saturday, June 5 — 12 noon to 5 p.m.
Sunday, June 6 — 9 a.m. to 5 p.m.
Monday, June 7 — 9 a.m. to 3 p.m.

Anterior Spine Fusion S-101

Andrew Caralla, M.D., John McKean, M.D., and Robert Fernand, M.D., Children's Hospital, Newark

Purpose of exhibit is to demonstrate present-day indications, techniques, and results of anterior spine fusions, pointing out especially the relative safety of the procedure and the need for the medical profession to be aware of its indications.

Pleural Effusion Cytology S-102

Barry R. Aikey, M.D., William V. Harrer, M.D., Joseph W. Sakalawski, Jr., M.D., and Francisca Enriquez, M.D., Our Lady of Lourdes Hospital, Camden

Pleural effusion frequently is a reflection of pulmonary parenchymal disease of diverse etiology. Thoracentesis with bacteriology and biochemical assay of the specimen has been the traditional method of evaluation. Cytology provides additional data for analysis. Illustrative cases are presented to support the role of cytopathology.

Acute Radiation Syndrome in Man S-103

James A. Hagan, M.D. and Louis Sanfilippa, M.D., Saint Barnabas Medical Center, Livingstan

The biologic effects of acute total body irradiation in man are predictable and with proper awareness of these effects, the necessary preparations can be taken to insure a higher survival following radiation exposure. This exhibit portrays the biologic effects in man of radiation based on actual industrial total body irradiation accidents and graphically depicts the temporal symptoms and signs for dose calculations. The exhibit also explains the role of prophylactic therapy and the modern day component, and chemotherapy treatment of the acute radiation syndrome.

"When Primary Prevention Fails" — Project Newark — Services to Children and Drug Addicts in a Deprived Population S-104

Donald B. Lauria, M.D., CMDNJ — New Jersey Medical School, Newark

A review of two major thrusts made by the Department of Preventive Medicine against the problems of lead-poisoning and drug addiction in Newark. (1) A review of the extent of the lead-poisoning problem — the use of the new "micro-method" screening process, a computer-backed follow-up and recall system and documentation of a resulting decline in lead-poisoning. (2) A review of the Department's provision of a central intake unit for addicts, evaluation of patient outcomes to match patient to treatment programs, operation of in-patient detoxification and support of treatment centers.

The Art and Science of the Prevention of Disease — Ten Simple Ways to Prevent Disability and Disease S-105

Donald B. Lauria, M.D., CMDNJ — New Jersey Medical School, Newark

The objectives of this exhibit are to define for the physician and the asymptomatic patient 10 simple ways to maintain health. It will consist of 10 modules, each reviewing an effective preventive method, with appropriate documentation. The results of a staff study will be presented. Physicians passing through the exhibit will be asked to complete a simple questionnaire to determine how many personally utilize the 10 preventive techniques.

Xeroradiographic Diagnosis of Gynecomastia S-106

Daniel S. Cukier, M.D., Hackensack

Bilateral gynecomastia is often related to medication but may result from fibrocystic mastitis. Likewise, unilateral gynecomastia may be caused by medication but has higher clinical suspicion for carcinoma. Xerorodiography of the male breast is helpful in the diagnosis of gynecomastia to exclude neoplasm. Examples of 10 benign male breast diseases will be reviewed including gynecomastia induced by stilbesterol, aldactone, digitalis, and reserpine, as well as fibrocystic disease and abscesses. Possible relationship of histopathologic gynecomastia and carcinoma adds to the usefulness of xeroradiography in the diagnosis of gynecomastia, which may be a precursor of cancer.

Lead Poisoning S-107

Leah Ziskin, M.D. and Edward D. Duffy, Jr., M.P.H., New Jersey State Department of Health, Trenton

The exhibit is designed to call attention to the problem of lead poisoning in New Jersey. The 4-

ponel exhibit is divided into the problem, the symptoms, contributing factors, and services ovoilable from the Stote Department of Heolth.

Control of Cancer of the Colon and Rectum S-108

American Cancer Saciety, New Jersey Divisian, Inc., Unian

This exhibit points out the ploteau reoched in the control of calan and rectum concer, ond emphosizes the need for eorlier diagnosis in arder ta reduce mortolity from this diseose. The importonce of digitol rectal examination, routine proctosigmoidoscopy, ond occult blood testing is stressed. Studies ore cited showing reduced mortolity rotes through routine proctasigmaidoscopy ond occult bload testing. A diognostic guide for the osymptomotic potient is presented.

Isotopic Evaluation of Myocardial Function S-109

P. A. German, M.D., Vladir Maranhaa, M.D., Se Da Cha, M.D., Alden Gaach, M.D., Javier Fernandez, M.D., Gerald Lemale, M.D., and Dryden Marse, M.D., Debarah Heart and Lung Center, Brawns Mills

The exhibit will demonstrote correlotion of informotion obtoined by use of medicol isotopes ond angiogrophy ond ventriculography. Studies will demonstrote thot non-invosive techniques con ossist in the diognosis of coronory ortery diseose ond volvulor heort diseose ond con be used for long-term evoluotion of the potient without significant potient discomfort. The exhibit feotures myocordiol scons compared with coronory orteriogrophy ond ventriculogrophy, pre- ond post-op functions, ejection froction studies, ond circulotion time evoluotion.

Echocardiography on the Diagnosis of Congenital and Acquired Heart Disease S-110

S. Yang, M.D., M. Calumbi, M.D., J. W. Eldredge, M.D., H. Galdberg, M.D., and D. Marse, M.D., Debarah Heart and Lung Center, Brawns Mills

The exhibit will describe the usefulness of echocordiogrophy in the diognosis of acquired as well os congenitol heort disease, os demonstroted by representotive echograms from potients with various conditions, including mitrol stenosis, mitral regurgitotion, oortic stenosis, oortic regurgitotion, left otrial mycome, idiopathic hypertrophic suboortic stenosis, pericardiol effusion, prolopsed AV Volve, and left ventriculor dysfunction.

Clinical Features of Floppy Mitral and Tricuspid Valves S-111

Alden Gaach, M.D., Sing Sang Yang, M.D., Vladir Maranhaa, M.D. and Dryden Marse, M.D., Debarah Heart and Lung Center, Brawns Mills

Clinicol feotures of floppy volves will be illustroted including phonocordiagroms ECG, VCG, exercise ECG echacordiogroms, and cotheterizatian findings. The exhibit is intended ta demanstrate the diognostic clues of this conditian ond is based on aver 200 coses studied at Deboroh. A short movie of prolopsing volves os seen ot cotheterizotion will illustrote the exhibit.

Automotive Baby Care — A Safe Ride for Every Child S-112

Arnold Canstad, M.D. and Seymaur Charles, M.D., CMDNJ — New Jersey Medical Schaal, Newark; and Saint Barnabas Medical Center, Livingstan

The newborn on his first ride home from the haspital requires effective occupont protection. A progrom hos been initioted for ontenotol and postpartum inhospitol educotion to be supplemented by continued reinforcement in the physicians' offices in the first yeor of life. The proportion of children properly protected by oppropriote cor seats is directly proportionote to the involvement of physicions in this educotional program.

Cerebral Transaxial Tomography S-113

Ira S. Rass, M.D. CATEC (Camputerized Axial Tamagraphy af Essex Caunty) with MSNJ's Cammittee on Neuralagical and Related Disarders

This exhibit hos on educotionol purpose to show the type of picture praduced by the computerized transaxiol x-roy device ond examples of structural ond tissue obnormolities of the broin and orbital contents obtoinoble with ond without the use of intravenous iodide for contrast. Developmental abnormolity, particulorly hydrocepholus ond shunt visuolizotion, brain tumor pre- ond post-aperotive, occlusive ond hemorrhagic cerebrol voscular disorders, broin abscess, ond degenerotive cerebrol states will be displayed.

Problem Oriented Stoma Care S-114

Dave B. Swerdlaw, M.D., Patricia Martin, R.N., and Gertrude Burns, R.N., Stoma Care Center, Mantclair

This exhibit will show stomo products ovoiloble from many sources ta solve three problems:

1. Security systems for reguloted end sigmoid colostomy;
2. Special methods of protecting lorge droining wounds;
3. The difficult colostomy irrigotion.

Most Useful Aids for the Low Vision Patient S-115

Gerald Fanda, M.D. and Lais Fanda, R.N., Low Vision Rehabilitatian Service, Saint Barnabas Medical Center, Livingstan

The exhibit will consist of illustratians os well os the actuol aids for demonstration and evaluotion.

TECHNICAL EXHIBITS

Saturday, June 5	12 noon to 5 p.m.
Sunday, June 6	9 a.m. to 5 p.m.
Monday, June 7	9 a.m. to 3 p.m.

MSNJ is pleased to recognize, through their generous contributions, the following patrons of the educational programs through the scientific sessions:

Eli Lilly and Company **Mead Johnson Laboratories** **A. H. Robins Company**

American Association of Medical Assistants, State of New Jersey **Message Center**

In 1976 AAMA celebrates its 20th anniversary as a national professional organization. The Message Center will have available information and brochures describing the aims and purposes of AAMA, its educational opportunities and certification program. AAMA offers the physician the opportunity to have a professional medical assistant serve his professional needs. Messages for doctors in attendance at convention will be relayed through this booth.

Ames Company, Division Miles Laboratories, Inc. **#16**

Ames Company will exhibit N-Multistix® Reagent Strips — eight different reagent areas on one plastic strip designed for testing urine specimens for protein, glucose, ketone, bilirubin, occult blood, urobilinagen, nitrite and also to indicate urinary pH. Microstix® offers three reagent areas on one strip; a chemical test for the immediate recognition of nitrite, and two culture test areas for semiquantitation of bacterial growth. Eyetone Dextrostix System for quantitative blood glucose results using whole blood also will be an display.

Armour Pharmaceutical Company **#28**

Armour Pharmaceutical Company invites you to visit its exhibit featuring the new product Calcimar® (calcitonin-salmon) Armour, Thyrolar® (liotrix) Armour and Nicobid® (niacin) Armour. Literature containing the latest product information will be available upon request.

Biometric Systems, Inc. **#34**

The Jones Dotamatic® is the first computer that is specifically designed for computerized spirographic analysis. Light weight, desk top equipment measuring FEV, FVC, MVV, MV, FRC series (single and multiple breath) flow volume loops, DLCO stress testing and blood gas analysis will be displayed, as will the Vitalograph Spirometer, single breath, wedge bellows, light weight portable unit which measures FEV, FVC, FMF, FEF, %FEV/FVC and MVV. Also on exhibit will be the Mallinckrodts Digital Serometer® Blood Analyzer — light weight, desk top system for rapidly performing 17 blood chemistries which is ideal for the office-based physician.

E. & W. Blanksteen Agency, Inc. **#10 & #11**

E. & W. Blanksteen Agency, Inc. is the official broker for The Medical Society of New Jersey for Accident and Health, Major Expense, High Limit Accident, Term Life Insurance, Hospital-Money, the Overhead Expense Plan, HR-10 Keogh Retirement Plan, and Corporate Master Retirement Plan. All of these programs provide exceptional value for the members because of the group purchasing power of the State Society.

Blue Shield of New Jersey **#21**

Participation by New Jersey physicians in Blue Shield of New Jersey reached an all-time high during 1975. The state's largest medical-surgical plan, which serves more than four million subscribers, paid a record 2,600,000 claims in 1975, amounting to some $144,000,000. Figures show an additional 590 physicians over the previous year participating in the Plan's fixed fee programs, the Series 500 and 750; and an increase of 733 participating in its Usual, Customary, or Reasonable (UCR) Fee Program. Blue Shield representatives will welcome the opportunity to discuss participation or other matters of interest with members of the profession.

Boehringer Ingelheim Ltd. **#6**

At the 210th meeting of The Medical Society of New Jersey, Boehringer Ingelheim Ltd. will feature Catapres® (clanidine hydrochloride); Combipres®

(clonidine hydrochloride 0.1mg. or 0.2mg + chlortholidone 15mg.); and Alupent® (metaproterenol sulfote) in its mony dosage forms. Representotives will be on hond to onswer questions obout these or any of our other ethical pharmoceuticols.

Joseph A. Britton Agency **#9**

This ogency provides officiolly endorsed professionol liability progroms.

Burroughs Wellcome Company **#2**

Representotives of Burroughs Wellcome Co. cordiolly invite you to visit Booth #2 for the lotest informotion on our products. Our exhibit will feoture Septra®, a new orol ontibocteriol combination for chronic urinory troct infections due to susceptible orgonisms, ond Actifed®. We will be pleased to onswer your inquiries on these and other Burroughs Wellcome products of interest to Society members ond guests.

Datamedic Corporation **#3**

The Dotomedic system is o complete, outomated occounting ond billing service designed to eliminote hondwritten records through the use of o speciolly designed Dotamedic terminol locoted in the doctor's office.

The Dotomedic service mointoins records of oll patient tronsoctions, prepores ond moils potient stotements, provides monthly records of occount status, ond prepares insurance forms for the office.

The key to the Dotomedic service is o smoll, ottroctive terminol locoted in the doctor's office. This terminol is connected by o privote telephone line to o computer center in the immediote vicinity of the doctor's office.

Encyclopaedia Britannica, Inc. **#5**

As part of our exhibit, we will hove on disploy the 1976 edition of Encyclopoedio Britonnico 3, The Britonnica Junior, Greot Books of The Western World, ond other related products.

C. B. Fleet Company, Inc. **#18**

This exhibit will feoture Fleet Enemo with new Comfortip, Fleet Children's Enemo, Fleet Minerol Oil Enema, Phospho-Sodo, ond Biscolax.

Group Health Incorporated **#15**

Here disploved will be progroms for innovotion in the public interest. There will be presentotions of new heolth service progroms by GHI ond discussion of current heolth insuronce progroms.

Hoechst-Roussel Pharmaceuticals Inc. **#26**

The Hoechst-Roussel soles representotives will be discussing o new publicotion entitled, "The Kidney in Congestive Heort Foilure." In this publicotion, Norman K. Hollenberg, M.D. ond Poul J. Cannon, M.D. discuss the role of the kidney in the pothogenesis of congestive heort foilure. Copies of this monogroph will be ovoiloble ot the exhibit.

Johnson & Johnson **#29**

The Dermotologicol Division highlights new entries in our line of skin care products. Feotured ore Retin-A Brand® tretinoin, the topicol vitomin A ocid treotment for ocne vulgoris ond MicoTin® brond miconozole nitrote, o topicol ontifungol. Also to be disploved ore Tromocin Brond Creom®, triomcinolone ocetonide creom, U.S.P., Purpose Brond Soop®, Purpose Brand Shampoo® ond Purpose Brond Dry Skin Creom® and our new Sundown Brond Sunscreen.®

David & Charles Levinson **#35**

Products disploved will be:

Medco Dublett-Duol ultrasound with polm-fitted tronsducers. Trigger points and symptom oreos treoted with 2 sound heods

Medco-Sonlotor Twin: A diognostic ond theropeutic instrument, combining synchronized ond pulsed ultrosound with smooth Medcolotor current with continuous, pulse ond surge settings

Medcolotors: Models K & G. Medcolotor with straight or interrupted golvonic currents

Medcotherm: Combination neuromusculor stimulotion ond moist heot, thermostoticolly controlled

Mortin Short Wave: Automotic tuning, deep penetrotion. Cordioline E.K.G. Bottery operoted, or plug-in.

McNeil Laboratories, Inc. **#31**

McNeil's technicol exhibit will feoture informotion on Tylenol® extro-strength copsules, providing increoseed onolgesic strength for minor conditions when the usual doses of mild onalgesics ore insufficient, Tylenol® with codeine toblets, combining codeine with the nonsolicylote onolgesic-ontipyretic acetominophen; ond Porofon Forte® toblets, for relief of discomfort ossocioted with ocute, poinful musculoskeletal conditions.

MetPath, Inc. **#12**

MetPath provides a notionol clinicol laborotory testing service for physicians, hospitals, and industry. MetPath is directed by pothologists, licensed by the federal government for interstote services, licensed by Medicore, ond opproved by the Americon College of Pathology, ond it is the only loborotory to publish results of Federol, Stote, ond ACPA proficiency testing.

Organon Pharmaceuticals **#19**

Orgonon Phormoceuticols is proud to onnounce o disploy consisting of Genisis® (conjugoted estrogens U.S.P.), Deco-Durobolin® (nondrolone deconoote) ond Durobolin® (nondrolone phenpropionote) our onabolic steroids, ond Hexadrol® (dexamethosone) our corticosteroid. Current studies ond literoture on these products ore avoiloble ot the booth.

Portraits by Parle **Special Booth**

Portroits ond Restorotions

PRO Services, Inc. **#22**

A Unique Master Keogh Plon

Prudential Insurance Company of America **Coffee Lounge**

Controctor with the Federol Government for Medicore Port B in New Jersey, North Corolino, ond Georgio, ond for Port A in New Jersey. We ore olso controctor for the Stote of New Jersey for Medicaid.

Radio Broadcasting Company **#27**

Here disployed will be equipment for rodio poging and mobile telephone services.

Reed & Carnrick **#25**

Reed & Cornrick, serving the medicol profession for over 100 yeors, produces o line of well-established speciolty items which ore leaders in the fields of gastroenterology, gynecology, proctology, ond dermotology. Some of our brand nomes are Kwell®, Phazyme®, Trichotine®, Proctofoam®, Proctofoam HC® ond Proxigel.® Our representotives will be avoiloble throughout the meeting to onswer ony questions concerning the Reed & Cornrick product line.

Rice & Holman Leasing Company **#32**

A product brochure ond informotionol booklets on "Cor Leosing — A Professionol Plon for Physicions" will be on display.

A. H. Robins Company **#13**

Ethicol Phormoceuticols

Roche Laboratories **#7 & #8**

Phormoceuticol products and originol research in medicine ond chemistry will be exhibited.

Sandoz Pharmaceuticals **#4**

Sondoz Phormoceuticols hos developed o number of films, oudio cossettes, ond complete leorning systems suitoble for in-service troining ond continuing medical educotion. Informotion on our programs is ovoiloble ot our exhibit booth.

W. B. Saunders Company **#17**

A full selection of our medicol book, journols, periodicals, ond oudio-visuol oids will be on disploy.

Searle Laboratories **#30**

You ore cordiolly invited to visit the Seorle booth where our representotives will be happy to onswer ony questions regording Seorle Products of Reseorch. Feotured will be informotion on the Cu-7®, Ovulen®, Demulen®, Enovid®, Aldoctozide®, Aldoctone®, Flagyl®, Lomotil®, Pro-Bonthine®, Metomucil® and other drugs of interest.

Donald F. Smith and Associates **#36**

Blue Cross-Blue Shield

Smith Kline Diagnostics **#33**

Feotured wil be Hemoccult, guoioc paper test for fecol occult blood; ond Clinicult, diognostic culturing system.

Staff Leasing, Inc. **#14**

Stoff Leasing, Inc. is a New Jersey-bosed corporotion set up to service the medicol community by becoming the employer of the professional's stoff and leosing those employees bock to the physicion. This results in substontial savings to the physicion — between 18 ond 22 percent of his gross poyroll —

and it also enables him to maximize contributions to his pension and profit sharing plans.

Stuart Pharmaceuticals #23

The Stuart Pharmaceuticals' exhibit consists of graphic panels, samples, and literature pertaining to some or all of the following fine pharmaceutical products: Mylanta®/Mylanta II®, Dialase®/Dialase Plus®, Mylicon-80®, Sorbitrate® and others.

U.S. Air Force Medical Recruiting Team #37

Air Force Medical Recruiting literature and giveaway items will be available.

U.S. Army Medical Department Personnel Support Agency #20

The Army Medical Department represents the largest comprehensive system of health care delivery in the United States. Currently the Army Medical Corps has vacancies for qualified physicians throughout the United States, Europe, the Orient, Alaska and Hawaii. Salaries start at approximately $31,000 and range up to $45,000 depending upon training and experience. Contact Captain R. Stanton: AMEDD Personnel Procurement Office, Building 5515, Fort Dix, N.J. 08640; or call (collect) 609-562-4556.

U.S. Navy Medical Corps #24

Committed to the maintenance of the health of Navy and Marine Corps personnel and dependents, the Navy Medical Corps offers all the ingredients that make for personal and professional fulfillment: comprehensive medical care without financial consideration, use of the latest equipment, highly skilled paramedic teams, a wide range of graduate and continuing medical education programs, affiliations with major teaching hospitals, an engaging life-style with 30 days annual paid vacation, and a $12,500 bonus. For more information contact Lt. Brown, Navy Recruiting District, 219 No. Broad St., Philadelphia (215) 597-9680.

Wyeth Laboratories #1

Featured will be Lo/Ovral® — each tablet contains 0.3 mg. norgestrel with 0.03 mg. ethinyl estradiol; and Serax® — C-IV — (oxazepam) Wyeth, capsules, 10, 15, 30 mg., tablets, 15 mg.

Cherry Hill Area Restaurants

For the convenience of those attending the forthcoming annual meeting, we are here listing Cherry Hill area restaurants.

Cinelli's Country House
Haddonfield Rd., Cherry Hill
(609) 662-5050

Colonial Inn
Route 73, Marlton
(609) 983-0707

Compton's Log Cabin
Cuthbert Rd., Haddon Twnshp.
(609) 854-9767

Diamond Diner
Route 70, Cherry Hill
(609) 665-0990

Grand Coach Grille
Route 73, Maple Shade
(609) 235-8550

Greenbrier Inn
Route 70, Cherry Hill
(609) 662-0800

Hawaiian Cottage
Route 38, Cherry Hill
(609) 667-9000

Smithville Inns, Inc.
Smithville
(609) 652-7777

Kenney's Suburban House
Marlton Pike, Cherry Hill
(609) 428-2500

Latin Casino
Route 70, Cherry Hill
(609) 665-3600

Pavio's Chez Antonio
Route 70, Cherry Hill
(609) 662-6900

Ponzio's Kingsway Diner
Routes 41 and 70, Cherry Hill
(609) 428-4808

Rustic Tavern
Route 70, Cherry Hill
(609) 663-9833

Steak and Brew
Haddonfield Road, Cherry Hill
(609) 665-2420

Windsor Restaurant
Route 38
(609) 667-8255

Zaberers Gables Inn
Black Horse Pike, McKee City
(609) 641-3200

The Committee on Annual Meeting strongly recommends early reservations if you are not planning to attend MSNJ's scheduled dinner events.

49th ANNUAL MEETING

Woman's Auxiliary to The Medical Society of New Jersey

Saturday through Tuesday
June 5-8

Cherry Hill Inn
Cherry Hill

Registration — Lobby Floor, Cherry Hill Inn

Saturday, June 5 — 12 noon to 4:30 p.m.
Sunday, June 6 — 9:30 a.m. to 4:30 p.m.
Monday, June 7 — 8:15 a.m. to 4:30 p.m.

Schedule of Events

Saturday, June 5, 1976

*12 noon — Golden Merit Award Ceremony
1:00 p.m. — Registration for Art Show
*7:00 p.m. — Convention Revelry
Reception, Dinner,
Entertainment, and Dancing

Sunday, June 6, 1976

9:30 a.m. — Art Exhibit
County Press and Publicity Exhibit
County Activities Pictorial Display
10:00 a.m. — Pre-convention Board Meeting
11:15 a.m. — Fellowettes' Brunch
1:00 p.m. — For Women Only: "Becoming More" Seminar by Dr. Donald J. Noone, Family Learning Institute
*6:30 p.m. — Inaugural Reception honoring President-Elect Madoro
*8:00 p.m. — Inaugural Dinner

Monday, June 7, 1976

8:15 to 9: a.m. — Coffee and Danish
9:00 a.m. to 12:00 noon — General Session
12 noon to 1:00 p.m. — Cocktail Hour
1:00 p.m. — President's Luncheon
Fashion Show by Moana
*5:30 p.m. — JEMPAC Wine and Cheese Reception
*8:00 p.m. — Dinner-Dance honoring President McGuire
Entertainment and Dancing

Tuesday, June 8, 1976

8:00 a.m. — County Presidents' Breakfast
10:30 a.m. — Post-convention Board Meeting

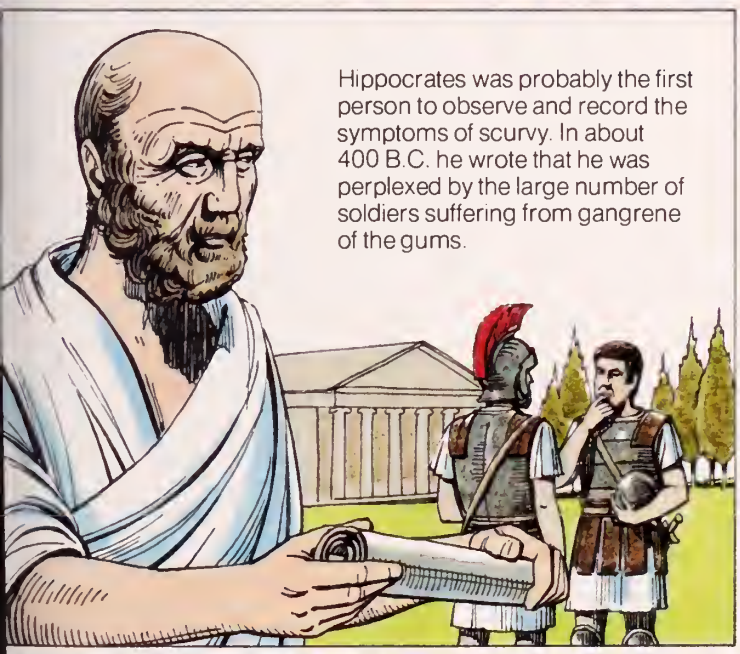
*MSNJ events, held at the Cherry Hill Hyatt House, to which Auxiliary members are cordially invited.

Convention Committee

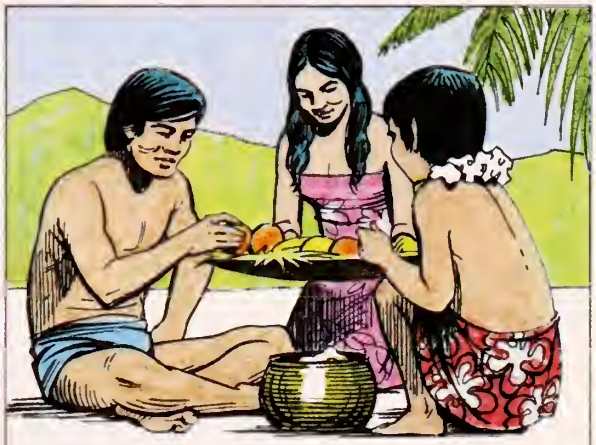
Chairman — Mrs. David Gehring
Co-Chairman — Mrs. Douglas Hammett

The ALLBEE® with C Scrapbook of Vitamin Facts & Fallacies

Northern and Central Europeans must obtain their vitamin C primarily from cabbage because these countries don't have a Florida or California as a source of citrus fruits. These inhabitants get about twice as much ascorbic acid when they eat their cabbage raw as when they boil it.



Hippocrates was probably the first person to observe and record the symptoms of scurvy. In about 400 B.C. he wrote that he was perplexed by the large number of soldiers suffering from gangrene of the gums.



People in more primitive, less commercialized societies often eat better balanced diets than affluent Americans. These natives instinctively choose nourishing foods because their bodies tell them what they need. The dietary habits of Americans are often influenced by television commercials that appeal to our wants instead of our needs.

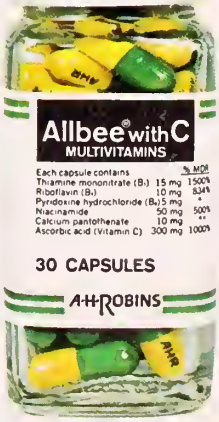
Vitamins are so potent that a day's supply weighs only 1/237th of an ounce!

Look for the monogram "AHR" on every Allbee with C capsule. It is your assurance that this is the original and genuine product and not an imitation.

Available on your prescription or recommendation

ALLBEE® with C

High Potency B-Complex and Vitamin C Formula



A.H. Robins Company, Richmond, Va. 23220 A·H·ROBINS

Spasm reactor?

Donnatal®!

	each tablet, capsule or 5 cc. teaspoonful of elixir (23% alcohol)	each Donnatal No. 2	each Extentab
hyoscyamine sulfate	0.1037 mg.	0.1037 mg	0.3111 mg.
atropine sulfate	0.0194 mg.	0.0194 mg	0.0582 mg
hyoscine hydrobromide	0.0065 mg	0.0065 mg.	0.0195 mg.
phenobarbital	(¼ gr.) 16.2 mg	(½ gr.) 32 4 mg.	(¾ gr.) 48.6 mg
(warning: may be habit forming)			

Brief summary. Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma; renal or hepatic disease; obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); or hypersensitivity to any of the ingredients.

A·H·ROBINS A H Robins Company Richmond Virginia 23220

Special Article

Current demand for available information in the health sciences has resulted in the establishment of numerous sources from which this accumulated knowledge may be obtained. These sources are unknown to many physicians, and, consequently, are infrequently used. A ready source of information would be an asset to busy physicians, therefore, the authors were prompted to present in an abbreviated form the available sources that easily may be utilized.

Information Sources for the Neurosciences*

Abbott J. Krieger, M.D. and Robert S. Lyle, M.L.S., Newark

The current knowledge explosion has made it increasingly difficult for physicians who are already faced with extraordinary demands to satisfy their needs for up-to-date medical information. As the number of books and journals increases exponentially, medicine becomes more complex, and the addition of the disciplines of mathematics and the physical sciences has compounded this complexity. Physicians must seek new ways of obtaining the data they need and the knowledge they should acquire to keep abreast of the times.[1] As new methods of information storage and retrieval are developed to meet the needs of modern medicine, physicians turn increasingly to information specialists for assistance in acquiring skills to utilize these methods.

Aside from merely providing answers to such requests, information specialists can be useful in identifying new sources of information and in assisting physicians in the use of the sources. No single source or system may satisfy the needs of every user, and few physicians have the time to identify and investigate every potentially valuable source of information that they may need.

Once identified, many information sources or systems are directly accessible to physicians without special instruction, although successful acquisition of information depends upon the user's knowledge of the system operations. Some systems require only a standard knowledge of reference tools and skills to be manipulated successfully, whereas others, particularly computerized information retrieval systems, require the user to be skilled in a particular set of operating procedures, computer demands, and/or the system logic. An understanding of these is not necessarily difficult to acquire. Some are readily adaptable to the needs of one individual, whereas others may find a particular method somewhat tedious. Any inconvenience or aggravation, real or imagined, experienced in information retrieval must be weighed against the information obtained, the user's need for it, and the availability of alternate sources of the same information.

The number of information sources in the health sciences precludes any attempt to provide a comprehensive listing of all of these in even one specialty. Valuable lists do appear, but they may never be complete and require frequent updating. The following list contains essential information sources in the neurosciences. The description of each is in a short outline form. The full details can be obtained by referring to the origin source itself. This list is meant only to alert the reader to the existence of these sources and perhaps to acquaint him with some unfamiliar aspects of the well-known ones.

Information Sources

Index Medicus — This source is probably the most widely used information retrieval tool in the field of medicine, although many fail to obtain much of the information that may be found through its proper use. Most difficulties stem from failure to convert the user's vocabulary to the controlled system vocabulary employed to generate the index. Instructions regarding its use appear in both the monthly and cumulated editions of the index. Of particular importance is the use of the Medical Subject Headings

*From the Department of Surgery, Division of Neurosurgery, New Jersey Medical School, Newark, New Jersey, and the Surgical Service, Section of Neurosurgery, Veterans Administration Hospital, East Orange, New Jersey, and Veterans Administration Hospital, Coatesville, Pennsylvania.

(MeSH) which appear as a second part of the January issue of the monthly edition of the index, and bound with the yearly cumulation. All indexing for the *Index Medicus* conforms to strict MEDLARS indexing rules, and a familiarity with the system logic is beneficial. Medical terminology is complex and contains synonyms, variant spellings, and problems involving translation from one language to another. The MeSH listings should be consulted to determine whether words are valid subject headings in the *Index Medicus,* and it is often necessary to determine which of several synonymous terms is used. The cross references in the MeSH listings are usually a more efficient means of determining valid terms than searching for the terms in the multivolume index itself. The MeSH terms are arranged both alphabetically and in broad categories, providing two means of access. In the alphabetical listing, each term is followed by an alphanumeric notation in parenthesis indicating the one or more categories which may be searched for related terms, or to verify the existence of broader and more specific terms.

A physician searching for articles on diabetes might begin in the alphabetic section of the MeSH headings. He would find the term entry "Diabetes Mellitus (C7, C13)," in which the alphanumeric notation "C7" indicates the category Endocrine Diseases, and "C13," Diseases of Malnutrition and Metabolism. Checking either or both of these categories, there are eleven more specific terms relating to various aspects of diabetes.[2] Since the *Index Medicus* lists articles under specific terms, the physician might consider using some of these terms. The MEDLARS indexing instruction manuals are also useful, but not widely publicized. These manuals, which were originally compiled for system indexers, serve as a complement however, since they provide more extensive cross references than the MeSH lists. Of particular interest are the Tumor Manual and the Eponymous Syndromes manual, the keys to the specific terms used in the system to designate the various neoplasms and syndromes — an area complicated by numerous synonyms. For example MeSH terms for 1973 do not include a reference to the Dandy-Walker Syndrome, so a physician searching for articles on this syndrome would have to decide on an alternate approach to the inquiry without a clue as to the system approach. The Eponymous Syndromes manual, however, quickly reveals that articles on the Dandy-Walker Syndrome appear in the *Index Medicus* under the headings "hydrocephalus" and "cerebral ventricles."

Medline — is an interactive, on-line information retrieval system based on portions of the MEDLARS tapes used to generate the *Index Medicus.* At present, the data base of Medline includes over 1,100 journals indexed for the *Index Medicus.*[3] Medline is usually brought into action from remote computer terminals. With the help of a trained consultant, the inquirer may formulate search statements to be used against the central data base and receive a response within seconds. The system first prints a statement indicating the number of citations retrieved but permits continuous revision in order for the operator to broaden or narrow his search at will.

In October 1972, a Medline search on sudden infant death retrieved 151 citations using the terms "death, sudden" and "infant, newborn" and/or "infant." It was expedient for the physician to narrow his search to contributions referred to as "hypercapnia," "anoxia," "vagus nerve," and a group of terms covering abnormal respiratory signs and symptoms. The revised search yielded twenty-three citations more directly related to the doctor's research on sudden infant death.

To receive, regularly, updated searches on topics of long-term interest, physicians can now use the Selective Dissemination of Information On-Line (SDILINE) feature of the Medline system. SDILINE is strictly a current awareness searching service covering the monthly computer input for the *Index Medicus,* the *Index to Dental Literature,* and the *International Nursing Index.* The data banks are changed every month, and information is usually available on SDILINE one month before the publication of the printed indexes. Files may be searched monthly and the results forwarded to the interested parties.[4]

The Medline system is available from the National Library of Medicine through the

Regional Medical Libraries and MEDLARS Centers which are listed in the *Index Medicus* and from some other large medical libraries. The fees charged for Medline services are variable.

Current Contents — Current Contents, Life Sciences, and *Clinical Practice* are weekly publications reporting on the current medical literature. The *Current Contents* series reproduces the table of contents, pages of selected leading journals, often prior to the publication of the journal, and is intended to alert the user to the most current articles in his field of interest. To counter the possible unwieldiness of a collection of tables of contents, a weekly subject index is included with *CC. Clinical Practice* is available as a separate subscription to *Current Contents* and *Life Sciences.* For a fee, copies of any article reported in *Current Contents* may be obtained from the publisher, the Institute for Scientific Information, or through its Original Tear Sheet Service (OATS). Full details on *Current Contents* and other services are available from the Institute for Scientific Information, 325 Chestnut Street, Philadelphia, Pennsylvania 19106.

Smithsonian Science Information Exchange (SSIE) provides reports concerned with current research projects. The exchange regularly receives reports from all federal agencies sponsoring research, as well as from over 150 major private foundations, universities, private industries, and some foreign sources. Upon request, the exchange can furnish accounts on research projects being conducted in that field. The exchange also offers an updating service to keep search reports current, as well as special information packages containing the results of regularly performed searches in specific fields of inquiry. Full information on services and fees is obtainable from the Smithsonian Science Information Exchange, 300 Madison National Bank Building, 1730 M Street, N.W., Washington, D. C. 20036.

National Referral Center of the Library of Congress provides the names of sources capable of supplying information on a given topic. The center does not supply technical details or specific answers to inquiries for information, but refers the inquirers to those sources with the capability to supply the needed information. The center provides its services without charge to organizations or individuals working in any field of the physical, biological, social, and engineering sciences. The center produces several source books which are published under the collective title, *A Directory of Information Sources in the United States* (June 1967). Revisions of some of the source books have been published, including *Biological Sciences* and *General Toxicology.* Inquiries can be made of the Library of Congress, Science and Technology Division, National Referral Center, 10 First Street, S.E., Washington, D.C. 20540.

Neurological Information Network consists of three specialized information centers under contract with the National Institute for Neurological Diseases and Stroke at the National Institute of Health. Two of these three centers, the Information Center for Hearing, Speech, and Disorders of Human Communication at the Brain Information Service at UCLA, and the Clinical Neurology Information Center at the University of Nebraska, provide a variety of published information. The network also produces three books of information sources that contain annotated entries concerned with the neurosciences. *Resources for the Neurosciences* (DHEW Publication No. (NIH) 74-554) covers all types of information sources in areas of the neurosciences, and is available from the Superintendent of Documents, United States Printing Office, Washington, D.C. 20420, at a cost of $1.25. The Information Center for Hearing, Speech, and Communication Disorders has compiled two source books of a more limited scope. *Information Sources in Hearing, Speech, and Communication Disorders,* Part 1, covers publications in the communication sciences. It is available for $6.00 from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151 (order no. PB-182 400). *Information Sources in Hearing, Speech, and Communication Disorders,* Part 2, Organizations and Developmental Edition, 1970, is concerned with organizations that supply information. The text is not completed, and the available edition is presented with the dual intent of disseminating the present-day in-

formation and soliciting recommendations for possible improvements. It may be obtained from the National Educational Consultants, 711 St. Paul Street, Baltimore, Maryland 21202 at a cost of $14.95.

References

1. Austin CJ: The computer and medical bibliography. *Milit Med* 129:737-741, 1964.

2. United States Department of Health, Education, and Welfare. Public Health Service. National Library of Medicine. *Medical Subject Headings: 1973*. Washington, D.C., Government Printing Office, 1973, DHEW Publication No. (NIH) 72-265.

3. Spiegal I and Crager J: Comparison of SUNY and MEDLINE Searches. *Bull Med Libr Assoc* 61:205-209, 1973.

4. Maurice and Laura Falk Library of the Health Professions: New Searching Service at Falk. *Library Bulletin*, 3:8:1, 1973.

From the Bicentennial Medical Exhibit Display

(Currently housed at Rutgers University's Alexander Library)

William Burnet, M.D. — Portrait — Oil on canvas, artist unknown. A Newark resident, Dr. Burnet was commissioned a surgeon in the Second Essex County Regiment in 1776, and was elected to Congress in 1780. He was appointed Chief Physician and Surgeon of the Hospital Department of the Eastern District in 1781, a post he held until the end of the war.

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Methyltestosterone N.F. — 5, 10, 25 mg.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE: Robert B. Greenblatt, M.D., and D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly*, pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Folic Acid	0.1 mg
Vitamin B-12	1.5 mcg
Methionine	12 mg
Choline Bitartrate	15 mg
Inositol	10 mg
Calcium Pantothenate	2.5 mg
Pyridoxine	0.25 mg
Copper (from Copper Sulfate)	0.25 mg
Zinc (from Zinc Oxide)	0.25 mg
Iodine (from Potassium Iodide)	0.075 mg
Calcium (from Dicalcium Phosphate)	72.5 mg
Phosphorus (from Dicalcium Phosphate)	55 mg
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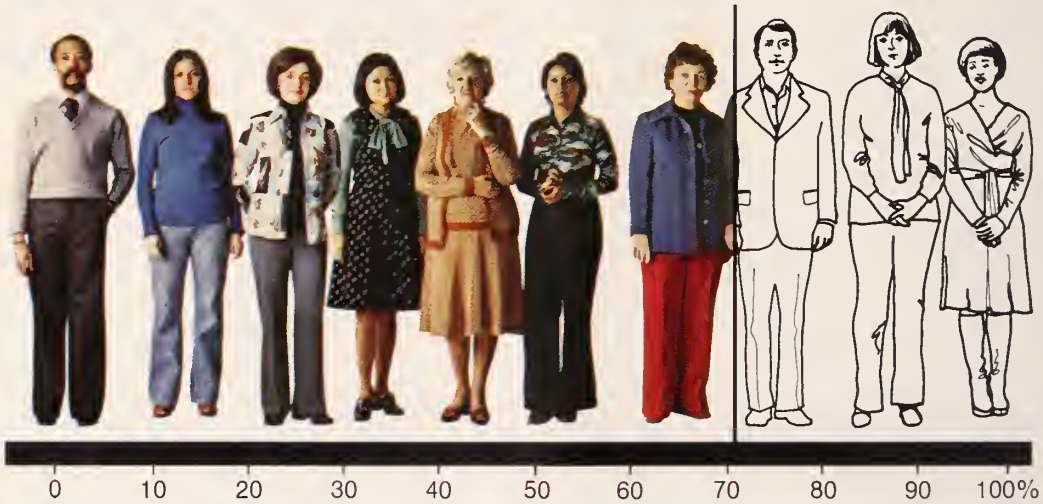

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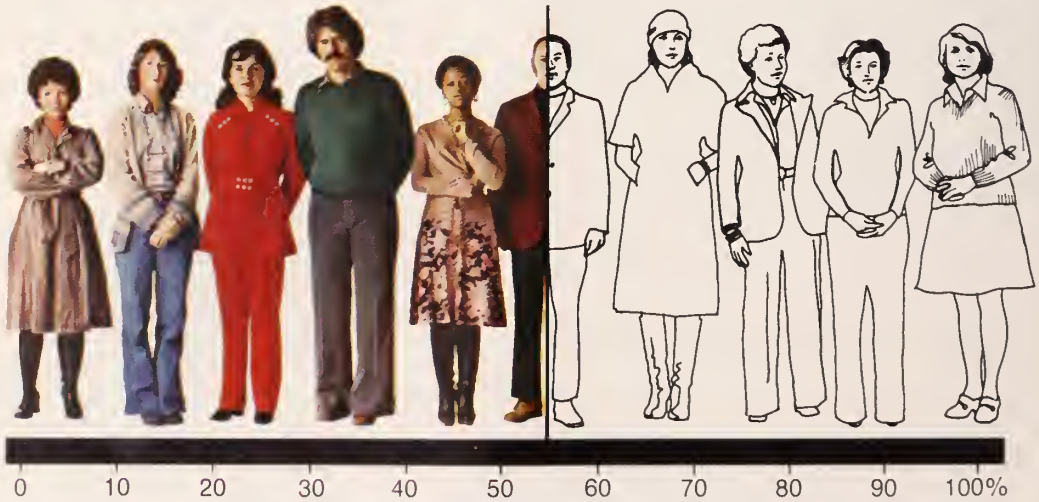

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For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Please consult summary of product information on following page.

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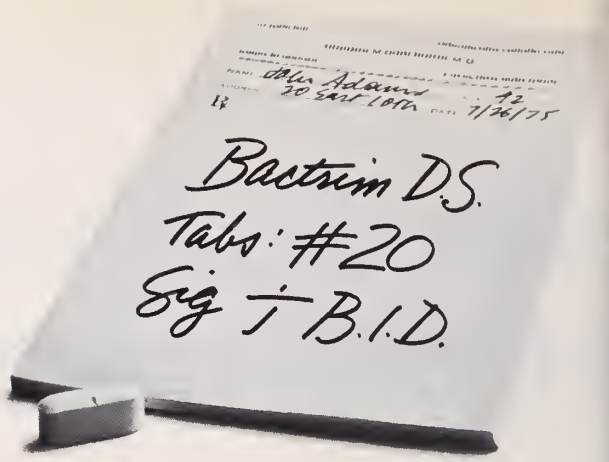

Significant Prescribing Factors:

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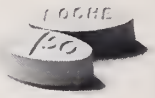

(80 mg trimethoprim and 400 mg sulfamethoxazole)

tablets

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored — bottles of 16 oz (1 pint).

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MEDICAL HISTORY

Sanitary Awakening in America

Harry Bloch, M.D./South Orange*

Pioneers from England brought to the New World tuberculosis, smallpox, fevers, and childhood ailments.[1-3] Yellow fever was American and African in origin and syphilis, probably, pre-Columbian. In the wilderness the strong survived. Fasting, prayer, herbals, and bloodletting helped.[4] Sickness was regarded as the wrath of God; smallpox, a contagion; and epidemics, celestial phenomena or due to decaying matter, miasma, that corrupted the air (Hippocrates, Galen).

As towns and cities evolved, so did recurrent epidemics: dysentery, malaria, smallpox, yellow fever, diphtheria, septic sore throat.[5-7] Community authorities introduced quarantine (Boston, 1648), and acts against street pollution: "throwing garbage, carrion, dead cats, and rats . . . or any stinking thing into the streets" (Boston, 1652). A notable achievement was the introduction of variolation in Boston by Rev. Cotton Mather and Dr. Zabdiel Boylston in 1721.[2] Though inefficient and often ignored, nevertheless, these were rational public health efforts.

Personal hygiene and sanitation were not cultivated, however. When George Washington took command of the new Continental Army at Cambridge July 3, 1775, to besiege Boston occupied by British troops under General Gage, the Massachusetts Provincial Congress warned him: "The youth of the army are not possessed of the absolute necessity of cleanliness in their dress and lodging . . . especially among those who from their childhood had been used to a laborious life."[8] Washington wrote of the New England soldier, " . . . they are exceedingly dirty . . . " and of the Maryland, Pennsylvania, and Virginia riflemen, " . . . tough, undisciplined, and unsanitary."[8,9] He issued regulations governing sanitation, isolation, variolation, and personal and camp hygiene. But shortages of vital needs, and crowded, poorly-ventilated camps only nullified his intentions and led to serious epidemics of dysentery and camp fever.[8,10]

The cities of the new nation were filthy. Streets were unpaved and littered with garbage and animal carcasses; and scavenger hogs and wild dogs roamed the streets and alleys. Water carriers sold pure water brought from springs.[11] Philadelphia, the nation's capital, achieved sanitation benefits following the disastrous yellow fever epidemics during the last decade of the 18th century. As late as 1847, New York still had hundreds of vagrant pigs that acted as scavengers and wandered through the streets at will.

The Industrial Revolution in 19th century America produced a rapidly deteriorating environment in manufacturing towns and cities.[1,12] Tenements for factory workers and their families were pitilessly overcrowded; pure water, sewerage, and recreation areas were usually not provided; decaying garbage, burying grounds, slaughter houses, and factories saturated the atmosphere with noxious exhalations; and narrow, dirty streets patterned the terrain. Slum dwellers were confined to a cul-de-sac into which poured increasing numbers of bewildered immigrants. Their existence was miserable; poverty, filth, and lack of personal cleanliness shortened their lives; and preventing or mitigating disease was hopeless. Dr. Benjamin McCready, in 1837, described slum areas in New York City and concluded: "Can we wonder . . . we find moral . . . physical disease, vice, as well as sickness?"[13] The policy of laissez-faire hindered enactment of

*Dr. Bloch is a retired pediatrician, now living in New Jersey, who has written and had published, in national and state journals, many articles on medical history. In addition to an active pediatric practice, he had been Senior Lecturer in Pediatrics, Downstate Medical School, and Director of Pediatric Services at Kings County Hospital Center and Brookdale Hospital Center, Brooklyn.

regulatory legislation; and self-interest of the rising bourgeoisie made them insensitive to public hygiene except when cholera or yellow fever, which had no respect for class, struck.[1] Illness, they contended, was punishment for filth and vice, traits of a certain class of society who had only themselves to blame.

In England, humanitarians distressed by observed living conditions endeavored to improve the environment.[12,14] John Howard (1726-90) agitated for cleanliness in prisons and hospitals; James E. Smyth sprayed (1780) nitric acid to cleanse its noxious air; and L.B. Guyton-Morveau of France, hydrochloric acid (1802).[15,16] Edwin Chadwick (1800-91), disciple of Jeremy Bentham, aroused by the appalling conditions of London slums (1838), started a series of practical sanitation moves that helped to control the widespread epidemics of cholera and typhoid. He involved William Farr, who served as registrar of deaths and their causes, and the energetic Dr. Southwood Smith who urged inhabitants of the London slums to raise their voices and demand parliamentary action (1847). These men were instrumental in the passage of the Public Health Act of 1848 by Parliament and stimulated the public health movement in the United States that materialized with the publication of the Shattuck report in April 1850.[17] The newly-founded AMA (1847) had appointed a committee on hygiene, in 1848, that reported indifference of doctors to the relation of disease to poverty, housing, and sanitation. The committee recommended uniform registration of births, marriages, and deaths.[18]

Lemuel Shattuck (1793-1859), a layman, tops the list of twenty-five distinguished American public health pioneers.[19] All that this man of profound humanitarianism and a keen mind could do with no other instrument than vital statistics he accomplished. Convinced of the value of vital statistics in public health, he helped found the American Statistical Society in 1839. In 1639, Massachusetts had ordered, but not enforced, recording of marriages, births, and deaths. Sextons had kept records of births and deaths; several New England towns kept vital statistics in smallpox;[20] and the founding of insurance companies in the 1840's emphasized the value of vital statistics.[21,22] Shattuck, devoted to accumulating accurate data, participated (1843) in adoption of the first registration of vital statistics by the Massachusetts legislature. The 1845 "Census of Boston" exposed shocking infant and maternal mortality. The assumption, as in England, that disease was due to decomposing filth led to the formation of the Sanitary Commission of Massachusetts and the great sanitary awakening in America. Sanitary regulations, for all practical purposes, did not exist. No law required specific amounts of air, light, space, drainage, nor tap water for the occupants of a tenement house. In the immigrant Irish Catholic slums in Boston, Shattuck reported 61.55 per cent of the children between 1841 and 1845 died under the age of five; in the same period, the average age of persons buried was 13.43 years.

In 1850, Shattuck, chairman of the "Commission," released a report esteemed a "classic in its field," the "first comprehensive plan for a state program in public health in the United States," and an "epitome of sanitary science."[12,23] Winslow praised it " . . . for . . . prophetic vision . . . the most significant single document in the history of public health," and ". . . an inspiration for the future."[24] Ignored for two decades, it was not until after the Civil War that state boards of health were established: the first (Massachusetts, 1869) was directed by Dr. H.I. Bowditch who combined humanitarianism with environmental cleanliness.

Shattuck visualized the problem as miasmatic, a filth problem, to be solved by sanitation and cleanliness. The "Report" deals with housing, factories, building construction, ventilation, heating, water supply, waste disposal, sewerage, pollution, milk, food, control of nuisances, public health training, nursery schools, control of communicable diseases, and administrative and philosophical features of public health. He presented reasons for offering his plan, answered expected objections, and urged its support because: "The sanitary reforms we advocate . . . give . . . the means of living longer, and enjoying more while one does live." He denounced quackery: "Anyone . . . learned or ignorant, honest . . . or knave, could assume the name of physician . . . to cure or to kill . . . without accountability."

Shattuck's approach to the causes of ill-health did not deter him from relating illness (and poverty) with moral corruption and a life of sin, nor concluding that "the character of man as a social being is modified by the circumstances of his existence."[6] He asserted that statistics would achieve balance between God and man, reduce crime, poverty, and social evils, and increase wealth, morality, and the happiness of man.[22]

In 1880, the triumphant germ theory by Pasteur and Koch augmented public health function within the "receptive temper of a community."[6] Nevertheless, as Shattuck warned, " . . . measures for prevention will affect infinitely more than remedies . . . "[17] And we can justly add that good public health depends on good government.[25-27]

References

1. Shryock RH: The origins and significance of the public health movement in the United States. *Ann Med Hist* 1:645–666, 1929.

2. Blake JB: *Public Health in the Town of Boston 1630-1822*. Cambridge, Harvard Univ Press, 1959, pp. VII, 122, 150, 177.

3. Blake JB: Diseases and medical practice in colonial America. In *History of American Medicine, A Symposium*. New York, MD Publications, 1958, p. 34.

4. Bloch H: Colonial medicine. *N Y State J Med* 72:2566, 1972.

5. Duffy J: Epidemics in Colonial America. Baton Rouge, Louisiana State Univ Press, 1971, pp. 214–222, 238.

6. Rosenkrantz BG: *Public Health and the State. Changing Views in Massachusetts, 1842-1936*. Cambridge, Harvard Univ Press, 1972, pp. 14–25, 28–36, 43–46, 69–109, 177–179.

7. Caulfield E: A history of the terrible epidemic vulgarly called the throat distemper which occurred in his majesties New England colonies between 1735 and 1740. *Yale J Biol Med* 2: 1939.

8. Cash P: *Medical Men at the Siege of Boston April 1775–April 1776*. Philadelphia, AM Philosophical Society, 1973, pp. 7, 10, 35–37.

9. Brown HE: *The Medical Department of the United States Army from 1755 to 1873*. Washington, D.C., Government Printing Office, 1873, pp. 4, 14.

10. Bloch H: Medical conditions at Valley Forge. *N Y State J Med* 70: p. 3010, 1970.

11. Duffy J: *A History of Public Health in New York City, 1625–1866*. New York, Russel Sage Foundation, 1968, pp. 48, 49, 55–67.

12. Stern BJ: *Historical Sociology*. New York, Citadel, 1959, pp. 386–394.

13. Sigerist HE: *Civilization and Disease*. Ithaca, Cornell Univ. Press, 1944, pp. 38–39.

14. Rosen G: *A History of Public Health. New York*, MD Publications, 1958, pp. 179, 213–216, 237, 287–89.

15. Ransom JE: John Howard on communicable diseases. *Bull Hist Med* 5: p. 131, 1937.

16. Baumgartner L: John Howard and the public health movement. *Bull Hist Med* 5:1937, p. 489.

17. Shattuck L: *Report of the Sanitary Commission of Massachusetts*. Boston, Dutton and Wentworth, 1850. *A Facsimile Edition*. Cambridge, Harvard Univ Press, 1948, pp. V–IX, 10, 46, 102, 107–239, 241–307.

18. Report of the Committee on Hygiene. *Trans AMA* 1:305–310, 1848; and 4: 517, 1851.

19. Smillie WG: The great pioneers of public health in America 1610–1935. *Am J Pub Health* 43: 1078–84, 1953.

20. Beall OT Jr, Shryock RH: *Cotton Mather, First Significant Figure in American Medicine*. Baltimore, Johns Hopkins Press, 1954, pp. 108–109.

21. Kramer HD: The beginnings of the public health movement in the United States. *Bull Hist Med* 21: 352–376, 1947.

22. Blake JB: The early history of vital statistics in Massachusetts. *Bull Hist Med* 29: 46–68, 1955.

23. J.S.: Review of Shattuck's report. *N Y J Med and Collat Sc* 6: 216–229, 1851.

24. Winslow C-EA: *The Evolution and Significance of the Modern Public Health Campaign*. New Haven, Yale Univ Press, 1923, p. 25.

25. Blake JB: Lemuel Shattuck and the Boston water supply. *Bull Hist Med* 29: 559, 1955.

26. Rosen G: Politics and public health in New York City (1832-1842). *Bull Hist Med* 24: 461, 1950.

27. Horn JS: *Away With All Pests. An English Surgeon in People's China: 1954–1969*. New York, Monthly Review Press, 1969, pp. 81–94.

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The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

P·M·A

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* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium® (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacologic effects of agents, particularly potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are avoidable in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and or low residue diets.

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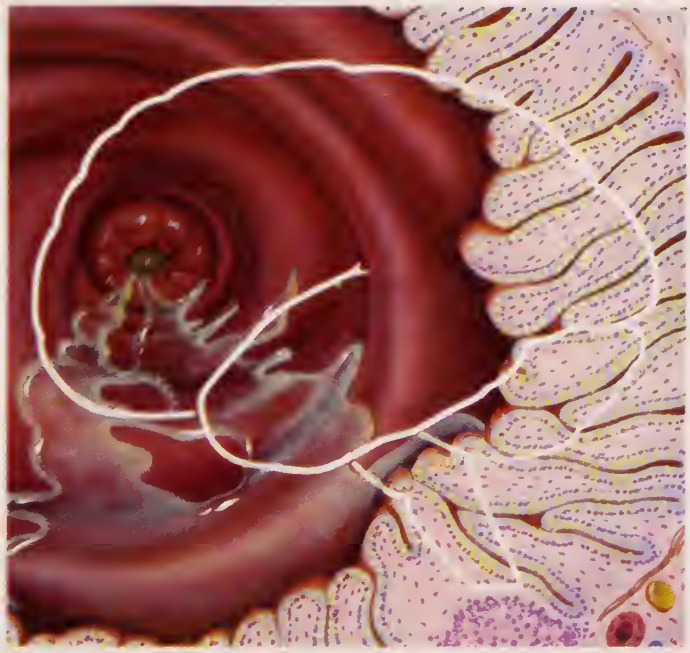

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

March 21, 1976

A regular meeting of the Board of Trustees was held on Sunday, March 21, 1976, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Proposed Standards for Licensure of Ambulatory Care Facilities . . . Received a report from the Executive Director that he will respond in writing to the Commissioner of Health in opposition to the following proposed standards for licensure of ambulatory care facilities as being impractical for implementation and, if enacted, responsible for escalating the cost for delivery of health care services.

(a) A facility providing primary care to adults and children.

(b) A facility providing comprehensive pediatric care.

(c) A facility providing family planning services.

(d) A facility providing prenatal and postpartum care.

(e) A facility providing surgical services.

(f) A facility providing drug abuse treatment services.

Hospital-based facilities must meet the standards promulgated in the hospital licensure manual of the New Jersey State Department of Health.

Facilities providing a single diagnostic service or a single therapeutic modality other than those enumerated above will not be licensed at the present time. This is not an all-inclusive list of the potential ambulatory care facilities which may be licensed. Standards will be developed as the need arises.

These standards and regulations are promulgated in order to insure health and medical service to the people residing in the State of New Jersey. The intent, whenever possible, is to provide personal comprehensive health services with due regard for patient amenities.

Proposed Shared Health Care Facilities Regulations . . . Received a report from the Executive Director that he would transmit to the Commissioner of Institutions and Agencies the Society's reasons (as enumerated below) for opposition to the proposed rules and regulations concerning shared health care facilities:

(a) Every partnership, regardless of whether it is multidiscipline, would be covered.

(b) Only the solo practitioner in his own building would be excluded.

(c) Every professional office building and multiple office structure, regardless of whether there is any connection between providers, would be covered.

(d) How would a physician who rents an office in a fifty-office complex be able to provide the State with the name and address of every person and entity having a financial interest in the structure?

(e) How could a physician gain access to a listing of all leaseholders and tenants?

Cardio-Pulmonary Resuscitation Meeting . . . Approved the minutes of the February 18th meeting of the Cardio-Pulmonary Resuscitation Committee, including the following recommendations, the second of which was reworded by the Board:

(1) That the New Jersey Hospital Association and the Academy of Medicine of New Jersey be contacted and requested to clarify in detail their guidelines for certification of CPR instructors and physicians.

Note: It was agreed that more than one agency for certifying cardio-pulmonary resuscitation courses is needed and that the American Heart Association (the only certifying agency) should recognize qualified physicians as certified instructors, since it is acknowledged that there is an insufficient number of CPR instructors. The Academy of Medicine and the New Jersey Hospital Association have issued guidelines for CPR, but these do not conform with those issued by the American Heart Association.

(2) That the Subcommittee on Cardio-Pulmonary Resuscitation convene a meeting to which the following interested organizations would be invited to participate, to address the problem of cardio-pulmonary resuscitation certification:

American College of Emergency Physicians — New Jersey Chapter
New Jersey Association of Osteopathic Physicians and Surgeons
Harriman Metropolitan Division, American National Red Cross
New Jersey Hospital Association
Emergency Department Nurses Association
College of Medicine and Dentistry of New Jersey — Newark and Rutgers
Academy of Medicine of New Jersey
New Jersey State Society of Anesthesiologists
Other interested organizations

Membership Directory . . . Approved the

following recommendations of the Committee on Membership Directory:

1. That the format for the 1976-1977 Membership Directory be similar to that used in 1974-1975, with the following modifications:

(a) Each member will be restricted to two (2) office listings.

(b) Each member's listing will include only board certifications, fellowships, county society and AMA membership, hospital affiliations, and medical school affiliations.

2. That "general practice" be listed as "family practice" with no subspecialty included.

3. That board certification be verified via use of the *Directory of Medical Specialists.*

Note: It was reported that it is likely the new Directory will not be ready for distribution in September because of the added work of verifying board certification and the possibility that the AMA computerized service will not be ready to assist in the compilation data.

Medicaid . . . Approved the following recommendation from the Committee on Medicaid:

That the opinions and advice of the Medicaid Committee actively be sought by all councils and committees of the State Medical Society in relation to Medicaid.

Note: The Medicaid Committee asked for clarification as to the mechanisms that ultimately sanctioned the Society's public relations strategy and funding decision regarding the Medicaid issue.

Coalition of Health Care Providers . . . Approved the following recommendation from the Committee on Medicaid and assigned Drs. Shwed, Alexander, and Charles to develop a report to be submitted at the next meeting of the Committee on Medicaid:

That The Medical Society of New Jersey join hands with other Medicaid and health-care providers and advocates to form a statewide coalition to voice our protest against the growing cessation and reduction in health-care services to the poor in New Jersey. We further ask that, if necessary, the Medical Society act as the catalyst for the creation of such a strong and unified coalition.

New Jersey Hospital Association . . . Received as informative the following report from John S. Madara, M.D., MSNJ's liaison representative to the New Jersey Hospital Association:

1. A motion was passed requesting that the executive officers of NJHA request an audience with the Commissioners of Insurance and Health to discuss 1977 rate setting for hospitals.

2. Kenneth Williamson, Washington legislative analyst, stated that Congress is moving toward controlled rate schedules for physicians regionally, combined with control of the number of new physicians. He foresaw reimbursement for services rather than procedures. He discussed the Talmadge bill, which would reimburse hospitals for giving up empty beds and breakdown hospital payments for radiology, pathology, and anesthesiology into an administrative fee and a service fee.

3. The recommendation that physicians should be reimbursed for performing utilization review functions regarding cost containment is to be referred to the joint meeting of the Executive Committees of NJHA and MSNJ for consideration on April 7, 1976.

4. Tabled action on A-366 (Snedeker, *et al*) permitting pharmacists to substitute a generic-named drug for a brand-named drug providing they are of the same chemical constitution and the generic drug reflects a lower cost to the consumer.

5. Voted to recommend that the Proposed Hospital Licensing Standards for Ambulatory Care Facilities be revised in a more realistic nature.

6. Voted to recommend that all member-hospitals supply the name of the individual in each hospital who is responsible for medical education to the Association for Hospital Medical Education of New Jersey for help in developing, providing, and maintaining sound undergraduate, graduate, and continuing medical education programs.

7. Tabled a recommendation that nurses *not* accept a physician's verbal medication order that is received and relayed via a third party such as a pharmacist.

Independent Physicians' Associations and/or Prepaid Health Care Contract . . . Voted to endorse a resolution from the New Jersey Foundation for Health Care Evaluation calling upon MSNJ to develop, through NJFHCE, and in cooperation with the component societies, a proposal for the establishment of one or more independent physicians' associations and/or a prepaid health care contract.

Social Security Number as Identifier . . . Directed that a communication go to William A. Dwyer, Jr., M.D., President of the Passaic Valley PSRO reiterating the Society's position of opposition to the universal use of social security numbers (taxpayer number) as identifiers (*JMSNJ* 71:tr111, July 1974) and indicating that only the House of Delegates has the authority to reverse the decision.

. . . Voted to communicate to the New Jersey Medicaid Department, the New Jersey Pharmaceutical Association, and the Department of Health, Education, and Welfare MSNJ's objec-

tion to a Medicaid regulation that will require pharmacists to place the prescribing physician's internal revenue service number on all prescription claim forms; the claim will not be paid if this information is not supplied. (The Medicaid Department will publish a directory of all physicians with their IRS numbers.)

Temporary Licenses . . . Agreed (8 in favor, 3 opposed, 1 abstention) to inform the State Board of Medical Examiners of its reaffirmation of the Society's position on temporary limited licenses — that in all AMA-approved residencies, a temporary certification be granted to the house staff to carry on all the functions of the physician in the hospital setting for the first 18 months of training — and to indicate its willingness to be friends of the court in any proceedings that may develop.

Note: The State Board (in response to a communication from MSNJ in accordance with action at the 2/14/76 meeting of the Board of Trustees) has advised MSNJ that its opinion is that a physician in training should be supervised by a licensed physician until such time as he could demonstrate that he was qualified for license by passing the licensing examination and completing a minimum of one year of approved hospital training.

Surgical Assistants . . . Approved the following statement (which will be presented to the Board of Medical Examiners on March 31) by the Ad Hoc Committee on Surgical Assistants, developed after consideration of the proposed Board of Medical Examiners' regulation concerning major and minor surgery that was printed in the January issue of the *New Jersey Register* (*JMSNJ* 73:342, April 1976):

Consideration was given to the State Board of Medical Examiners' proposal as well as the position of the Joint Commission on Accreditation of Hospitals and that of the American College of Surgeons.

Nationally, no major medical organizations, including JCAH, ACS, AMA, and AAMC have been able to define the terms "major and minor surgery." Consequently, most of these organizations have abandoned the use of the term. Likewise, there is no generally accepted definition of "unusual hazard." According to JCAH Guidelines, each hospital must determine its own definition and document it in the rules and regulations of the medical staff. The conscience of the surgeon, the operating room supervisor, and the medical staff will be reflected in the definition and its interpretation. The surgeon must be prepared to defend his decisions before the tissue committee, the medical staff, and the governing body of the hospital.

To the Committee's knowledge, no State nas a rule on the topic or a requirement that goes beyond compliance with the JCAH Guidelines. The necessity for a rule in the form offered by the State Board of Medical Examiners was not, in the opinion of the Committee, well documented.

The Committee determined that a regulation of workable proportions is necessary and developed the following:

Except in dire emergencies, in any surgical procedure with unusual hazard to life there must be a qualified assistant present and scrubbed.

The term "qualified assistant" is to be defined in the rules and regulations of the hospital.

It shall be the responsibility of each medical staff to promulgate appropriate rules and regulations in this regard and to assure compliance by the individual physicians.

Improved Public Relations and Legislative Programs . . . Requested that working-format proposals (prepared by the Executive Director) which correspond to the five-point program outlined by Dr. Todd at the June 3, 1975, Board meeting (*JMSNJ* 72:674, August 1975) be forwarded to each member of the Board for consideration at the April meeting.

Conference of Presidents and Presidents-Elect . . . Met with the Conference of Presidents and Presidents-Elect which had convened in the morning with the Chairman of the Committee on Long Range Planning and Development and with a representative group of MSNJ's AMA Delegates.

The following topics were considered in meeting with the Board: (1) Professional Liability — the Conference was informed that James E. George, M.D., J.D., has been retained as Director of the Department of Liability Control and that five bills have been introduced into the legislature and assigned Senate numbers: (a) Statute of Limitations (2 bills), (b) Res Ipsa Loquitur, (c) Informed Consent, and (d) Collateral Source Law; (2) Medicaid Payments; (3) Assistants in Surgery; (4) JEMPAC; (5) Right To Subpoena Hospital Records; (6) Continuing Medical Education; (7) PSRO's; (8) National Health Planning and Resources Development Act of 1974, which the AMA is continuing to attempt to have repealed or amended; (9) News Releases; (10) MSNJ-Sponsored Dental Plan for Its Members; (11) Lack of Communication — the Conference was informed that within one week

of a Board meeting a communication is sent to each county officer detailing the most germane issues covered and that county officers have an open invitation to attend Board meetings; (12) Education in Office Management Procedures for New Physicians; and (13) Improved Public Relations — the Chairman of the Council on Public Relations suggested that county medical societies develop a rapport with legislators and members of the press and arrange meetings with these groups and their most informed county members.

Arthur Brisbane Child Treatment Center . . . Directed that a communication be sent to the Commissioner of Institutions and Agencies, with a copy to the Governor, requesting that the monies (1.2 million dollars) be restored to the budget for the operation of the Arthur Brisbane Child Treatment Center, the only New Jersey State-operated inpatient psychiatric service for children not connected with a large mental hospital.

New Jersey Society of Physical Medicine and Rehabilitation . . . Agreed to support the New Jersey Society of Physical Medicine and Rehabilitation in opposing a regulation of the Department of Health whereby not more than two Amputee Evaluation Centers and the Kessler Institute for Rehabilitation will be the only approved Amputee Evaluation Centers for review of all requests for prostheses for children eligible under the Crippled Children Program. The Society of Physical Medicine and Rehabilitation feels that this action interferes with the private practice of medicine in that it will deny the practicing physician in this specialty as well as in orthopedics the right to review or prescribe requests for prosthetic as well as orthotic services.

Ad Hoc Committee on Professional Liability — Voting Privileges . . . Directed that the New Jersey Orthopaedic Society be informed that the current structure of the Ad Hoc Committee on Professional Liability will be maintained.

Note: The above action resulted from a communication from the New Jersey Orthopaedic Society requesting voting privileges on the Ad Hoc Committee on Professional Liability. The Board and the Committee previously have considered this request and since an issue has never occurred where the final outcome has not been unanimous it was agreed that the Committee structure not be changed.

Continuing Medical Education Requirement Exemptions . . . Directed that the Committee on Medical Education be instructed to send an appropriate communication to the presidents and executive secretaries of component medical societies calling attention to the CME exemption requirements.

Note: The Society's position is that if a physician is in any way rendering patient care, he is expected to fulfill 150 credit hours for continued membership in MSNJ. An example of a valid reason for not complying would be illness.

Original Cover Art Available

William Arthur Smith is offering an edition limited to fifty signed original impressions from the wood blocks of the bicentennial cover of *The Journal*. They are done on handmade Mariki or mulberry fiber papers (which are particularly adaptable for wood cuts) in black, gray, and a subdued red. Each proof requires three baren-rubbed hand printings. The image measures approximately 18" x 30" on sheets varying in measurement from 24½" x 33½" to 25" x 37". The impressions are offered to collectors at $100; members of MSNJ may obtain these signed originals at $75 each. Please place your order directly with the artist whose address is Windy Bush Road, Pineville, Pennsylvania 18946.

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CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The excitement generated by the coming alive of the College of Medicine and Dentistry of New Jersey's new campus in Newark is understandable, I am sure — so my referring to it again and again in these columns can be forgiven. As you read this we will be in the midst of dedicating that 46-acre campus (on May 10), and I hope you will have availed yourself of the invitation to attend, issued through a recent issue of *The Journal* (73:255, March 1976).

The milestone that this represents prompts a review of where the College has been and where it is going. I would like to couch it in terms of a report on our recent past, recognizing that such a report, like a snapshot, may freeze a period of time rather than project the living, pulsing, continuing institution like the CMDNJ.

The most recent major effort in our development was the beginning of construction on the Newark campus of a 486-bed College teaching hospital a year and a half ago, reported previously in this column. Our 150,000-volume Library of the Health Sciences opened last fall. The new home of CMDNJ-New Jersey Dental School was phased in during the winter, and across the campus the new Community Mental Health Center was opened in December. We look forward to completion of the nine-level, block-wide, basic-sciences building later this year.

There were 209 graduates in 1975 — a record number — and among the medical-school and Fifth Pathway graduates, a greater number than ever, 97, elected to remain in New Jersey hospitals for their postgraduate training.

The professional degree programs of the graduate school and of CMDNJ-New Jersey Dental School, CMDNJ-New Jersey Medical School and CMDNJ-Rutgers Medical School welcomed 322 students for the new year, a quarter of them women, a fifth were members of minority groups, and 95 percent were residents of New Jersey. The total registration in the four schools of the College was 1,044 in the 1974-75 year; this year it is 1,096. Additionally, 263 full-time students are enrolled in non-degree allied-health programs.

As our student body grew, so have the services of our hospitals. Raritan Valley Hospital is a striking case in point. Opened only a decade ago as a local community hospital, it has experienced spectacular growth in services, patient load, and reputation since coming under the operating control (in 1970) of CMDNJ-Rutgers Medical School, for which it is the primary teaching hospital. The hospital is winning recognition as a referral institution for the entire state and is retaining its community character. Typical of the growth pattern is the outpatient department, opened after an ambulatory care wing (part of the expansion program) was completed in late 1973. The department recorded 5,315 outpatient visits in fiscal 1974; in 1975 the figure nearly doubled, to 9,704. Physical therapy, another beneficiary of the building expansion, recorded 4,851 patient visits in 1972; two years later the number of visits leaped to 15,068 and to 16,863 last year. The hospital has experienced a number of firsts within the year — open-heart surgery was first performed there on August 27, 1974, a kidney dialysis and transplant program has been initiated, a pediatric special-care unit opened recently, and the hospital now conducts residency programs in medicine, surgery, pediatrics, and pathology.

Among other highlights, CMDNJ-Rutgers Medical School is now a fully accredited four-year institution granting the M.D. degree; work is proceeding toward the long-sought South Jersey Medical Education Program, although funding it has become a problem; Dr. John Martin is guiding the CMDNJ-Programs in the Allied Health Professions; and Dr. Vincent Lanzoni took office last fall as dean of the CMDNJ-New Jersey Medical School.

There have been disappointments, too. A major one was the lack of definitive movement on another long-sought CMDNJ project, a teaching hospital for the CMDNJ-Rutgers Medical School campus in Piscataway. The fiscal constraint being experienced by all state-supported institutions is severe. At this writing, there are strong indications that we will have to

raise tuition significantly for next year. The budget situation still clouds the immediate future, but we are confident that the skill and devotion that has helped fulfill New Jersey's dream of a health sciences institution will prevail.

The focus of the College is moving from plant construction to the new and expanded education and health-care programs our new and near-new facilities in Newark and Piscataway make possible. Total long-range planning for need and function, which sometimes had to take a back seat to the immediate problems of growth, is again in the forefront of our activities, with the promise of direct benefits to the taxpayers of New Jersey.

CMDNJ has made great progress in a very short time. My colleagues and I and our Board of Trustees thank you for your continuing support. We are confident that by continuing to work together, mutual goals will be attained and the record of the recent past will be surpassed in the future.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY — J. W. Chen, M.D., 25 Springfield Avenue, Hasbrouck Heights 07604. Taipei (Taiwan) 1970. Board eligible. Group, partnership, solo, or hospital. Available July 1976.

Sami Emel Basaranlar, M.D., 30 Hasbrouck Road, Staten Island, New York 10304. University of Istanbul (Turkey). Group, partnership, solo. Available.

Sumedha V. Kulkarni, M.D., 318 East 15th Street, New York 10003. Poona (India) 1964. Board eligible. Group, partnership, or hospital. Available July 1976.

CARDIOLOGY — Samuel P. Kumar, M.D., 4729 Hickory Place, Cheyenne, Wyoming 82001. Osmania Medical College (India). Subspecialty, internal medicine. Board certified. Group. Available July 1976.

FAMILY PRACTICE — Robert J. Baird, M.D., 2702 Fruitville Pike, Lancaster, Pennsylvania 17601. Temple 1973. Group or partnership, semi-rural, central New Jersey preferred. Available August 1976.

M. B. S. DeSilva, M.D., 25 West Wellsboro Street, Mansfield, Pennsylvania 16933. Medical College, Colombo (Ceylon) 1966. Board certified. Group or full-time emergency room. Available July 1976.

INTERNAL MEDICINE — Jen-Shong Lin, M.D., 355 Bard Ave., Apt. 6-J, Staten Island, New York 10310. Taipei (Taiwan) 1968. Board eligible. Group, partnership, hospital based. Available July 1976.

Robert J. Rubano, M.D., 3102 Glencairn Ave., Toledo, Ohio 43614. CMDNJ 1970. Board eligible. Group or partnership. Available July 1976.

Roberto R. Diaz, M.D., 355 Bard Ave., Staten Island, New York. Santo Tomas (Philippines) 1970. Board eligible. Solo or associate. Available July 1976.

Stephen R. Shapiro, M.D., 3151 Lake Forest Drive, Apt. 69, Augusta, Georgia 30904. Chicago Medical School 1969. Subspecialty, gastroenterology. Board eligible. Group, partnership, or solo. Available July 1976.

Nabil Attaya, M.D., 5736A Thorndale Lane, Richmond, Virginia 23225. Alexandria (Egypt) 1965. Subspecialty, cardiology. Board certified. Group, partnership, or solo. Available July 1976.

Hari K. R. Bhasin, M.D., 1145½ Hartford Avenue, Apt. 1C, Johnston, Rhode Island 02919. All-India Institute of Medical Sciences, 1966. Subspecialty, nephrology. Board eligible. Hospital, group, or solo. Available July 1976.

Nancy S. Scher, M.D., 142 East 16th Street, Apt. 6-A, New York 10003. Pennsylvania 1971. Board certified (IM). Subspecialty, hematology. Group, preferably southern New Jersey. Available July 1976.

Sinlaratana Pairojana, M.D., 300 Community Drive, Apt. 4-1B, Manhasset, Long Island, New York 11030. Siriraj, Bangkok (Thailand) 1966. Board certified. Subspecialty, hematology. Group or partnership (hospital based). Available July 1976.

OBSTETRICS AND GYNECOLOGY — Ching Wu Hou, M.D., 43-135th Street, Apt. 8-P, Jamaica, New York 11418. China Medical (Taiwan) 1969. Board eligible. Solo, group, or partnership. Available July 1976.

Jiunn-Bor Hwang, M.D., 3990 Bronx Boulevard, Apt. 6-J, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Group, partnership, solo. Available July 1976.

Florencia C. Lopez, M.D., 355 Bard Avenue, Apt. LC, Staten Island, New York 10310. Santo Tomas (Philippines) 1960. Board eligible. Group, partnership, solo. Available July 1976.

Judith A. Stavis, M.D., 315 Eighth Street, Palisades Park 07650. Cornell 1972. Board eligible. Group, clinic. Available July 1976.

Hoon Yoo, M.D., 950 49th Street, Apt. 1-A, Brooklyn, New York 11219. Catholic Medical School, Korea. Board eligible. Solo, partnership, group, or hospital. Available July 1976.

Stanley Wilson Yang, M.D., 675 East 233rd Street, Bronx, New York 10466. Rangoon University Medical School (Burma) 1969. Board eligible. Group, partnership, solo. Available July 1976.

Wu-Jan Lin, M.D., 67-50 Thornton Place, Apt. 1K, Forest Hills, New York 11375. Taipei (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976.

ONCOLOGY — Abdul G. Mundia, M.D., 73-17 260th Street, Glen Oaks, New York 11004. L.T. Medical, Bombay (India) 1970. Board eligible. Solo, group, or hospital based. Available July 1976.

OTOLARYNGOLOGY — Tay B. Lee, M.D., 5601 Boulevard East, West New York, New Jersey 07093. Seoul University (Korea) 1962. Board certified. Partnership, group, or solo. Available.

PATHOLOGY — Raafat Ahmad, M.D., 1017 Lafayette Drive, Yardley, Pennsylvania 19067. F.J. Medical (Pakistan) 1964. Board certified. Group, partnership, or hospital-based. Available July 1976.

Thomas J. Joseph, M.D., 46 Brighton Drive, Gaithersburg, Maryland 20760. Temple 1970. Board certified. Group or partnership. Available May 1977.

PEDIATRICS — Yong-Kwon Chun, M.D., Station H, P.O. Box 95, Central Islip, New York 11722. Pusan (Korea) 1965. Group or partnership. Available July 1976.

Vasudev Gabbur, M.D., 97-15 Horace Harding Expressway, Apt. 18-M, Corona, New York 11368. Osmania (India) 1963. Board certified. Solo, group, or partnership. Available.

Jose D. Buhain, M.D., 85 Livingston St., Apt. 12-G, Brooklyn, New York 11201. Far Eastern (Philippines) 1967. Board certified. Partnership, solo, group, hospital. Available July 1976.

M. H. Ziai, M.D., 188 Hillside Avenue, Cresskill, New Jersey 07626. Teheran 1960. Board certified. Partnership or solo. Available July 1976.

Wen-Shiang Hong, M.D., 89-30 134th Street, Jamaica, New York 11418. Taipei (Taiwan) 1971. Board eligible. Partnership or solo. Available July 1976.

Jaw-Tang Chen, M.D., 3990 Bronx Boulevard, Apt. LK, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Solo, partnership, or group. Available.

Michael Z. Blumberg, M.D., 701 North Lincoln Street, O'Fallon, Illinois 62269. Jefferson 1971. Subspecialty, allergy. Board certified. Group or partnership. Available July 1977.

PSYCHIATRY — Lauretta A. Blake, M.D., Dina Manor Apts., 1320 H. Street, Belmar, New Jersey 07719. New York Medical 1952. Board eligible. Partnership or group, hospital or institution. Available March 1976.

Reza Feiz, M.D., 1199 Whitney Avenue, Apt. 310, Hamden, Connecticut 06517. Isfahan (Iran) 1967. Full or part-time. Available July 1976.

SURGERY — Ashwin I. Mehta, M.D., 702-B James Street, Bridgeport, West Virginia 26330. Baroda (India) 1960. Board certified. Group or partnership. Available July 1976.

Ahmad H. Shatila, M.D., 16331 Heather Lane, Middleburg Heights, Ohio 44130. American University (Beirut) 1970. Board eligible. Subspecialty surgical oncology. Group, solo, partnership, or academic. Available July 1976.

Anuershetru Siddanna, M.D., 173 Pleasant Street, Melrose, Massachusetts 02176. Karanatak Medical School (India) 1965. Board eligible. Group, partnership, salaried position, others. Available May 1976.

Vicente P. Grana, M.D., 2430-C 8th Street, Fort Lee 07024. Far Eastern (Manila) 1966. Board eligible. Subspecialty thoracic surgery. Solo, partnership, group. Available July 1976.

Vijaykumar Kulkarni, M.D., 318 East 15th Street, New York 10003. Poona (India) 1965. Board eligible. Group, partnership, or solo. Available July 1976.

UROLOGY — Mark J. Brodkey, M.D., 605 Elysian Fields Ave., New Orleans, Louisiana 70117. John Hopkins 1968. Board eligible. Partnership or group. Available July 1976.

P. Satpathy, M.D., 6529 Landover Road, Apt. 303, Cheverly, Maryland 20785. 1965. Board eligible. Solo, if possible. Available July 1976.

Edward Salmon, M.D. 4343 Graham Drive, Pierrefonds, Quebec H9H2B9, Canada. University of Kentucky, 1969. Board eligible. Group, partnership, or solo. Available July 1976.

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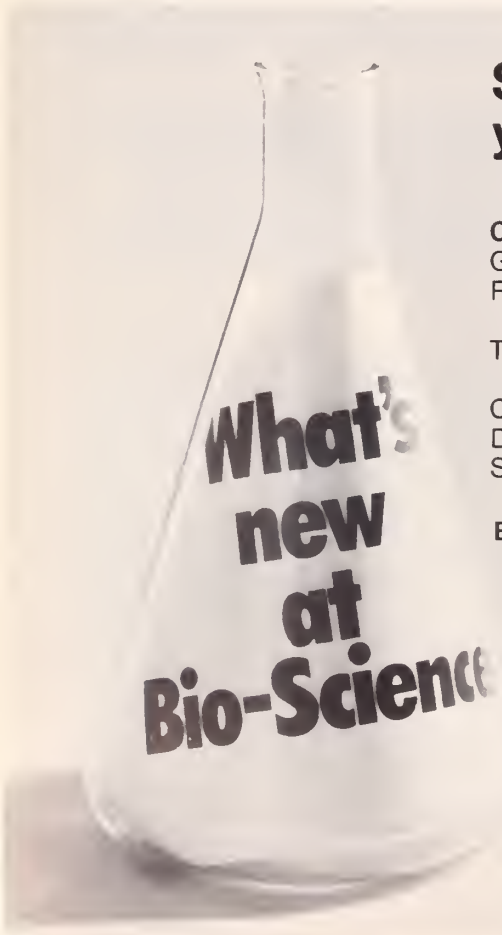

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Therapeutic Drug Information Center*

The Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associated Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m. — telephone (212) 622-8989 or 636-7535. The following are questions and answers handled by the Center recently.

1. In response to numerous daily questions concerning albuterol (Salbutamol,® Ventolin®), the following information is provided.

During the past decade, albuterol, a beta-adrenergic bronchodilator, has been available commercially in Europe, Canada, South America, Australia, and Asia as an oral inhalation, tablets, syrup, and intravenous injection. At the present time, the product, in the forms of an oral inhalation, tablets, and syrup, is under investigation in the United States by Schering Corporation.

Albuterol has been shown to be as effective as isoproterenol (Isuprel®) for rapid relief of bronchospasm with a more prolonged action and fewer cardiac effects.[1] Albuterol has also been shown to be as effective a bronchodilator as terbutaline[2] and metaproterenol.[3]

Guleria, *et al.*[1] conducted a double-blind study to investigate the effect of albuterol in 15 patients having moderately severe airway obstruction due to bronchial asthma. On the first day, 9 patients (group 1) received a single oral dose of albuterol (2 mg) and the remaining six received placebo (group 2). On the next day, all the patients were given a standard dose of 10 mg sublingual isoproterenol. The authors found that albuterol produced significantly greater bronchodilatation than placebo, and the degree of bronchodilatation was comparable to that produced by 10 mg isoproterenol given sublingually. The effect of albuterol started within half an hour and continued for up to six hours. (The effect of isoproterenol starts within 15 to 30 minutes and continues up to two hours.[4] Albuterol's cardiovascular side effects were minimal and, unlike some conventional bronchodilators, it did not aggravate existing hypoxia. The authors concluded that albuterol appeared to be a superior bronchodilator when compared to other sympathomimetic drugs.

Murray, *et al.*[5] conducted studies to determine the effects of albuterol and isoproterenol in 58 children who presented with asthmatic attacks. Alternate cases received two puffs either of isoproterenol (250 mcg) or albuterol (200 mcg). In 34 of these examinations, the medication was preceded by a control inhalation of water. After giving isoproterenol there was a rise in heart rate which appeared to be dose-related. No significant change in heart rate occurred after either albuterol or water. There was also a tendency for oxygen tension to fall as isoproterenol-induced bronchodilatation occurred. By contrast, the oxygen tension tended to rise as albuterol-induced bronchodilatation increased. The authors concluded that albuterol was at least as efficient a bronchodilator as isoproterenol and appeared to have less side effects.

Choo-kang, *et al.*[2] conducted a clinical study in 21 patients with chronic asthma to compare the efficacy of albuterol and terbutaline. The patients received inhalation of either 500 mcg of terbutaline or 200 mcg of albuterol delivered from pressurized metered-dose dispenser. The order of drug administration was randomized. The data indicated that these two aerosols were equal in potency and duration. Legge, *et al.*[6] also found that the side effects produced by albuterol and terbutaline were similar.

Tala, *et al.*[3] conducted a double-blind study in 12 patients suffering from asthma to investigate the bronchodilating activity of isoproterenol (200 mcg), metaproterenol (1500 mcg), and albuterol (200 mcg) as compared with a placebo containing only inert propellent. The comparison consisted of testing each patient by inhalation of one of the drugs on each of four consecutive days. The authors found that the response to metaproterenol and albuterol were almost as rapid as isoproterenol, but their bronchodilator effects were of significantly longer duration. The bronchodilator effects of metaproterenol and albuterol were similar. However, another study conducted by Kennedy and Simpson[7] showed that albuterol produced a longer duration of clinically effective bronchodilatation than did metaproterenol.

Smith and Davis[8] investigated the long-term use of albuterol inhaler in 14 patients with reversible bronchospasm to determine if resistance developed to the bronchodilator effect of the drug. Repeated intra-bronchial administration of albuterol was carried out under normal uncontrolled conditions. No diminution in the effect of albuterol was observed, suggesting that under clinical conditions, resistance to the drug did not occur.

In conclusion, albuterol appears to be as effective a beta-adrenergic bronchodilator as isoproterenol, metaproterenol, and terbutaline, and possibly possesses fewer side effects than isoproterenol. Its length of action appears to be longer than isoproterenol and possibly similar or longer than metaproterenol. Long-term use of albuterol in therapeutic doses does not appear to produce resistance of beta-adrenoreceptors.

References

[1]Guleria JS, *et al:* Evaluation of orally administered salbutamol in the relief of bronchospasm in bronchial asthma. *South Med J* 67:1337-1341, 1974.

[2]Choo-Kang YFJ, *et al:* Clinical trials: A comparison of salbutamol and terbutaline aerosols in bronchial asthma. *Practitioner* 211:801-804, 1973.

[3]Tala E, *et al:* Double-blind comparison of isoprenaline, orciprenaline and salbutamol aerosols in patients with asthma. *Postgrad Med J* 47:61-63, 1971.

[4]Anon: *American Hospital Formulary Service,* American Society of Hospital Pharmacists, Washington, D.C., 12:12, (July) 1969.

[5]Murray AB, *et al:* The effects of pressurized isoproterenol and salbutamol in asthmatic children. *Pediatr* 54:263, 1974.

[6]Legge JS, *et al:* Comparison of two oral selective B_2-adrenergic stimulant drugs in bronchial asthma. *Brit Med J* 1:637-639, 1971.

[7]Anon: Salbutamol: A review. *Drugs* 1:274-302, 1971.

[8]Smith RN and Davies HJ: Long-term use of a salbutamol inhaler in general practice. *Practitioner* 210:425-428, 1973.

2. Do you have any information concerning the use of colchicine in the treatment of psoriasis?

Psoriasis is characterized by a 12-fold acceleration in the rate of cell division.[1] Thus, various agents which affect cell division have been investigated for the treatment of this condition. Our files contain two reports in which colchicine, a cytotoxic plant alkaloid, was used to treat psoriasis.[2,3]

Kaidbey, *et al.*[2] utilized topical colchicine (not available commercially but compounded by incorporating colchicine powder in a suitable base) to treat 12 patients with resistant plaque-type psoriasis refractory to treatment with topical steroids, tars, or anthralin. Once daily application of 1.0 percent colchicine in hydrophylic ointment produced substantial resolution of recalcitrant psoriatic plaques, especially those on the trunk. With occlusion lower concentrations of the drug (0.25 percent and 0.5 percent) were usually effective. A thick viscous base (hydrophylic petrolatum) was more effective than hydrophilic cream base (hydrophilic ointment), presumably because of greater occlusivity. Clearing of psoriasis in some cases took from 6 to 12 weeks. Irritation and tenderness were the main side effects noted and usually subsided after withholding treatment for three to four days. Hematalogical or other systemic signs of colchicine toxicity did not occur.

Plaques which underwent complete remission remained clear for more than six months.[1] However, in partially cleared up plaques, relapses occurred four to eight weeks after treatment was stopped.

In 1959, Van Scott and Riverton[3] included colchicine among several drugs which they tested for the treatment of psoriasis. One patient received weekly intravenous doses of colchicine, and involved areas of skin appeared less erythematous and scaly after five weeks of therapy. These same investigators also studied five patients who were treated with 0.1–3.6 mg of colchicine in 2 cc of 70–90 percent alcohol (.005–0.18 percent) applied topically under occlusive dressing. They found that when colchicine as well as other cytostatic agents are used in psoriasis, gross healing of lesions observed clinically can be correlated with histologic-alterations in the epidermis.

The latest edition of Goodman and Gilman lists the following pharmacological properties of colchicine.[4] The drug is known to have both antimitotic and anti-inflammatory activity. Colchicine has the ability to bind to micromolecular protein, and thus it interferes with the function of the mitotic spindle which causes depolymerization and disappearance of the fibrillar microtubles in granulocytes and other motile cells. This may explain colchicine's ability to interfere with leukocyte mobilization during inflammation. Colchicine also is known to inhibit the release of histamine granules from mast cells, and the movement of melanin granules in melanophores. Colchicine's action in psoriasis may be related to one or more of these cytotoxic or anti-inflammatory mechanisms.

In conclusion, studies supporting the use of colchicine for the treatment of psoriasis are limited. Its use is experimental and studies are needed to further evaluate its effectiveness and toxicity.

References

[1]Voorhees JJ and Duell EA: Psoriasis as a possible defect of the adenyl cyclase-cyclic AMP cascade. *Arch Derm* 104:352-358, 1971.

[2]Kaidbey KH, *et al:* Topical colchicine therapy for recalcitrant psoriasis. *Arch Dermatol* 111:33-36, 1975.

[3]Van Scott EJ and Reinertson RP: Morphologic and physiologic effects of chemotherapeutic agents in psoriasis. *J Invest Dermatol* 33:357-369, 1959.

[4]Goodman LS and Gilman A (eds.): *The Pharmacological Basis of Therapeutics,* 5th edition. New York, Macmillan, 1970, p. 351.

3. Please supply information concerning the use of Intralipid® for total parenteral nutrition.

Hyperalimentation or total parenteral nutrition (TPN) has become an accepted means of achieving an anabolic state in patients otherwise unable to maintain normal nitrogen balance. The standard TPN solution used to date consists of 50 percent dextrose combined with either casein hydrolysate (Amigen®), fibrin hydrolysate (Aminosol®), or crystalline amino acid mixture (FreAmine®). Because of the hyperosmolarity of this solution, it must be administered by a catheter introduced into a central vein in order to prevent sclerosis. Other major complications which may occur include infection, hyperglycemia, hypoglycemia after the sudden cessation of infusion, and hyperchloremic metabolic acidosis. Recently, a 10 percent intravenous fat emulsion (IFE, Intralipid®) which may be administered as part (no more than 60 percent) of TPN intravenously *via* a peripheral vein as well as by central venous infusion has become available in the United States.

IFE consists of 10 percent soybean oil, 1.2 percent egg yolk phospholipids, 2.25 percent glycerin, and water for injection. The soybean oil is a refined natural product consisting of a mixture of neutral triglycerides of predominantly unsaturated fatty acids. IFE has an osmolarity of approximately 280 m Osm per liter which is isotonic (as compared to approximately 1100 m Osm per liter for protein hydrolysate solution with 50 percent dextrose), and a total caloric value of 1.1 calories/ml. Due to stability difficulties, IFE must not be mixed with electrolytes or other nutrient solutions, but it may be infused into the same peripheral vein as a carbohydrate-amino acid solution by means of a Y-connector located near the infusion site.[1]

Yeo, *et al.*[2] compared two groups of post-surgical patients: one group of 12 patients received IFE, glucose and protein by peripheral vein, while the other group of four patients received the more traditional TPN solution of hypertonic glucose and protein via central venous infusion. The data indicated that the two modes of therapy were equally effective. The authors concluded that, as IFE does not require central venous administration and cannot cause hypertonic complications, it is safer and easier to use than traditional TPN solutions.

Coran[3] treated 31 infants and children with a peripheral infusate consisting of two separate bottles: one contained IFE while the other contained 10 percent glucose, amino acids, electrolytes and vitamins. All patients except one demonstrated a weight gain during the study period, and the authors stated that there were no complications directly related to the hyperalimentation. Although a mild to moderate eosinophilia occurred in a large number of the patients, no clinical manifestations were noted. In addition, one child developed anemia, but it was considered secondary to iron deficiency since no iron supplements were administered during the hyperalimentation period.

Puri and associates[4] treated 14 infants suffering from congenital abnormalities of the gastrointestinal tract with a peripheral infusate consisting of three basic solutions: (1) amino acids, fructose, and electrolytes; (2) 20 percent intravenous fat emulsion; and (3) 10 percent dextrose. All patients gained weight during the period of observation and no cases of septicemia were noted.

Lipson and co-workers[5] reported one case of thrombocytopenia after IFE administration in a neonate, and therefore suggested that daily platelet counts should be performed in neonates receiving this product.

Caution should be exercised in administering IFE to patients with severe liver damage, pulmonary disease, anemia, or blood coagulation disorders, or when there is danger of fat embolism. When it is administered, the patient's capacity to eliminate the infused fat from the circulation must be monitored. The lipemia must clear between daily infusions. During long-term therapy, liver function tests should be performed. Adverse reactions directly related to IFE are: (a) *immediate or early adverse reactions,* each of which has been reported to occur, in clinical trials, in an incidence of less than 1 percent: dyspnea, cyanosis, allergic reactions, hyperlipemia, hypercoagulability, nausea, vomiting, headache, flushing, increase in temperature, sweating, sleepiness, pain in the chest and back, slight pressure over the eyes, dizziness and irritation at the site of infusion, and rarely thrombocytopenia in neonates; (b) *delayed adverse reactions:* hepatomegaly, splenomegaly, thrombocytopenia, leucopenia, transient increases in liver function tests, and over loading syndrome (focal seizures, fever, leukocytosis, splenomegaly and shock).[1]

In conclusion, IFE is indicated as a source of calories and essential fatty acids for patients requiring parenteral nutrition for extended periods of time (usually for more than five days) and as a source of essential fatty acids when a deficiency occurs.[1] It appears to offer an advancement in the area of TPN, as it may be administered by a peripheral vein.

References

[1]Anon.: Intralipid, Cutter Laboratories, Berkeley, California (package insert).

[2]Yeo MT, *et al:* Total intravenous nutrition. *Arch Surg* 106:792-796, 1973.

[3]Coran AG: Total intravenous feeding of infants and children without the use of a central venous catheter. *Ann Surg* 179:445-449, 1974.

[4]Puri R, *et al:* Total parenteral feeding in infants using peripheral veins. *Arch Dis Child* 50:133-136, 1975.

[5]Lipson AH, *et al:* Thrombocytopenia after intralipid® infusion in a neonate. *Lancet* 1462-1463, 1974.

ANNOUNCEMENTS

Surgical Lectures — Rutgers Medical School

The Rutgers Medical School, CMDNJ, Department of Surgery, is sponsoring the following program, the last in its series of Visiting Professor Lectures. The session has been approved for one credit-hour in Category I of the AMA Physician's Recognition Award.

June 1 *Surgical Significance of Benign Colorectal Polyps*
Robert E. Condon, M.D., Professor of Surgery
Medical College of Wisconsin

The lecture will be held at 5 p.m. in the main auditorium of Rutgers Medical School, University Heights, Piscataway. For further information, please communicate with John H. Landor, M.D., Professor and Chief of the Division of General Surgery at the College.

Seminar on Head and Neck Tumors

The 4th W. Franklin Keim Memorial Seminar on "Pathology, Surgery, and Problems of Head and Neck Tumors" will be held from September

23 to 25 at the Newark Eye and Ear Infirmary. Sponsored by the New Jersey Medical School and the United Hospitals Medical Center, the seminar will include lectures, slides, and panel discussions. Among others, topics to be presented are "Environmental Factors in Cancer," "Midline Granuloma," and "Surgery of Malignant Salivary Gland Tumors." Tuition is $150; for residents and military personnel the charge is $75 — two luncheons are included. The program has been accredited for 18 hours in Category I of the AMA Physician's Recognition Award. For additional information please communicate with K.H. Han, M.D., Director, Department of Otolaryngology, United Hospitals Medical Center, 15 South 9th Street, Newark, New Jersey 07107.

Family Practice Certification Examination

October 30 and 31

The next examination for certification by the American Board of Family Practice will be given October 30 and 31, at seven geographically distributed cities throughout the United States. Information may be obtained from Nicholas J. Pisacano, M.D., Executive Director, American Board of Family Practice, University of Kentucky Medical Center, Lexington, Kentucky 40506. Please note that for those wishing to take the examination a completed application must be filed *before June 15, 1976.*

New ABFP Diplomates

Congratulations to the following members of The Medical Society of New Jersey who have recently been certified as diplomates of the American Board of Family Physicians:

Salvatore J. Angelo, M.D., Toms River
Paul A. Arts, M.D., Long Branch
Stanley Bernstein, M.D., Bridgeton
Edgar C. Bristow, III, M.D., Absecon
Mary Ann Haflin, M.D., North Wildwood
James G. Iannucci, M.D., Bridgeton
Clarence W. Jaggard, M.D., Woodbury
Howard H. Lehr, M.D., Fanwood
Thomas E. Mattingly, Jr., M.D., Mount Holly
Edwin W. Messey, M.D., Willingboro
Anthony J. Picaro, M.D., Beach Haven
Arnold M. Roth, M.D., Fanwood
Laurence Russell, Jr., M.D., Flemington
John P. Salvo, M.D., Medford
Penn P. Shelley, M.D., Succasunna
George L. Triebenbacher, M.D., Beach Haven
Albert Wermuth, Jr., M.D., Clinton
Edward D. Wildman, M.D., Moorestown

Volunteer Physicians Needed in Israel

A group of physicians has been instrumental in establishing an organization whose purpose is to direct volunteer physicians to work in medically-deprived areas in Israel. Israeli Kibbutz doctors (English speaking) are seeking physicians to help in providing primary care, developing patterns of care, and teaching medical students. If you are able to give a week or more of your time, please communicate with Paul Drucker, M.D., 799 Amboy Avenue, Edison, New Jersey 08817 — (201) 548-2656.

GOLDEN MERIT AWARDS

Saturday, June 5 at 12 noon
(Note change in date and time)

The 19th Annual Golden Merit Award Ceremony of The Medical Society of New Jersey will be held at 12 noon on Saturday, June 5, 1976, at the Cherry Hill Hyatt House, in conjuction with the 210th Annual Meeting. The membership is cordially invited. A list of the 1976 award recipients appears on page 394 of this issue.

Reception Immediately Following Ceremony

Bicentennalia

(The following sketches of historical interest were written by Fred B. Rogers, M.D., as a part of MSNJ's bicentennial observation (1966) and are here reprinted from two issues of *The Journal* — 63:179, May 1966 and 62:497, October 1965.)

Thomas Dunn English: Doctor, Lawyer, Author

Among New Jersey's literary figures—Freneau, Whitman, Stockton, Gilder, Van Dyke — two physicians appear: Thomas Dunn English in the past century and William Carlos Williams in the present. Dr. English, cited twice in the latest edition of *Bartlett's Familiar Quotations* (1955), was an energetic man who pursued several professions — medicine, law, literature, politics — achieving contemporary recognition in each. A prolific author, his verse is still connected with the State where he spent most of his years. It is time to reappraise his work and tangibly memorialize this son of the Garden State.

Descended from Quaker ancestors who were early settlers in New Jersey, Thomas was born near Philadelphia on June 29, 1819. After preliminary education at the Friends' Academy at Burlington, he received his M.D. degree from the University of Pennsylvania in 1839 at the age of twenty. His doctoral thesis had as its subject phrenology, the now obsolete study of the mind and character from the shape of one's skull.

Following a brief medical practice, Dr. English studied law and was admitted to the bar at Philadelphia in 1842. Early attracted to journalism, he met Edgar Allan Poe, then an editor in that city. In 1844 the Doctor moved to New York City where he edited a newspaper, the *Aurora*, and a literary magazine, the *Aristidian*, to which both Poe and Walt Whitman were contributors.

Returning to Philadelphia in 1848, English founded a humorous periodical entitled *John Donkey*, but libel suits stilled its braying after several months. Not forsaking science, in 1851 he edited and contributed several papers to a short-lived medical journal, *The Philadelphia Lancet*.

In the next year (1852), Dr. English returned to active practice of both law and medicine at Logan, West Virginia. In addition, he became the first mayor of that town. Three years later he settled in New Jersey, his home for the remaining forty-five years of his life.

Practicing medicine at Fort Lee and Hackensack during the Civil War, he was, for a time, a member of the New Jersey Legislature from Bergen County. While at Fort Lee he wrote a plea for the preservation of Revolutionary War ruins overlooking the Hudson River at that site. Continuing public activity after moving to Newark in 1878, he was elected to Congress and served from 1890 to 1894.

A voluminous writer, English produced many poems, several novels and plays, numerous editorials, legal and political documents. Being primarily concerned with contemporary events, his style was hurried and generally more charming than profound. Romanticism, the dominant strain of the nineteenth century, appears throughout his writings. His nostalgic poem, *Ben Bolt*, written in 1843, became very popular throughout the English speaking world.

Oh! don't you remember sweet Alice, Ben Bolt?
Sweet Alice, whose hair was so brown,
Who blushed with delight when you gave her a smile,
And trembled with fear at your frown?

Ben Bolt catapulted Dr. English to literary fame. The adulation resulting from this ditty came to annoy its author, however, and he spoke slightingly of its worldwide success. At a meeting of the Essex County Medical Society (of which he was a member) a quartet appeared on one occasion to sing it in his honor. Obviously displeased, the doctor threatened to leave the gathering if the song was not promptly discontinued! More recently, Carl L. Carmer, in his folklore collection, *Songs of the Rivers of America* (1942), chose *Ben Bolt* as typifying the spirit of the Delaware River.

In his nature verses, English left us vivid descriptions of our country's natural beauty. His "rural idyls" reveal a fine appreciation for American landscapes. *The Delaware* ranks among the best in this class.

Down through the hills and through the valleys that glow
With the sun from above and the green from below,
On by the cities that lie at my side,
Growing deeper and wider, I quietly glide
Past where the Schuylkill pays tribute to me,
Till I reach in my journey the fathomless sea.

There where the ships from the North and the South,
And the East and the West, with their keels vex my mouth,
I mingle my waters with those of the main,
Bury my flood in the flood of the ocean,
Whose motion repels me again and again,
Yet flowing and flowing.

Through his folk ballads (published in book form as *American Ballads* in 1879) Dr. English made his most significant contribution to our national heritage. These ballads exhale the fragrance of an age which was far less complicated than our own. Human sympathy and insight appear amid experiences common to all. In *Betty Zane,* for example, we read:

Though little dangers they may fear,
When greater dangers men environ
The women show a front of iron;
And, gentle in their manner, they
Do bold things in a quiet way.

Married to Annie Maxwell Meade of Philadelphia in 1856, Dr. English fathered four children. A daughter, Alice, collected much of her father's verse in a volume, *The Selected Poems of Dr. Thomas Dunn English* (1894). Three years later, another daughter, Florence English Noll, edited his *Fairy Stories and Wonder Tales;* and in 1904 his son-in-law, Arthur H. Noll, brought out a similar volume culled from periodicals.

In recognition of his varied achievements, the College of William and Mary in Virginia in 1876 conferred an honorary doctoral degree upon Dr. English. Returning to journalism late in life, he served on the literary staff of the *Newark Sunday Call* prior to his death on April 1, 1902.

A Latin Inaugural by Dr. William Burnet, 1767:

De usu scalpelli in pleurisis.

In his *History of Medicine in New Jersey,* writing about Dr. William Burnet (second president of The Medical Society of New Jersey), Dr. Stephen Wickes tells us that "being a fine classical scholar, on assuming the office on the first occasion he read an essay in Latin on the use of the lancet in pleurisy."

William Burnet, one of the organizers of our state society, was a son of Dr. Ichabod Burnet (1684-1774) of Elizabeth. Born in 1730, William graduated from the College of New Jersey (Princeton) in 1749, studied medicine with Dr. Staats of New York, and settled in Newark as a physician. In 1766 he became one of the original members of The Medical Society of New Jersey, and in the following year was elected its president upon the death of Dr. Robert McKean.

Dr. Burnet took an active part in the struggle for independence. He was named first Judge of the Essex County Court under the State constitution. In 1776 he organized a force of 300 men for military service and was commissioned surgeon to the Second Essex Regiment. During 1780 and 1781 he served as a member of the Continental Congress, resigning to become Chief Physician and Surgeon of the Hospital Department of the Eastern District of General Washington's army.

After the war, Dr. Burnet continued his professional pursuits. His home was situated near the present Lincoln Park, Newark. He was appointed a Judge in the Court of Common Pleas. In 1786 he was re-elected president of The Medical Society of New Jersey. His address on retiring from that office in the following year was entitled, "The Nature and Importance of the Healing Art." It was later published in the Society's printed *Transactions* (1875).

A member of the First Presbyterian Church of Newark for the last twenty-three years of his life, he was one of its ruling elders. His wife, née Mary Camp, bore him a large family whose descendents continue to this day. Dr. William Burnet died on October 7, 1791, at age 61. One of his sons, Dr. William Burnet, Jr. (1754-1799), practiced in Belleville and served like his father as a surgeon in the Continental Army during the Revolutionary War.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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LETTERS TO THE JOURNAL

Medicaid's Dictates Unrealistic

February 26, 1976

Dear Sir:

The administrator of my hospital recently asked me to write a letter justifying the last forty-eight days of a fifty-six-day hospitalization of a paraplegic female admitted for a comminuted supracondylar fracture of the femur.

It appears that the medical advisory staff of Medicaid (i.e., computer and clerks) after "reviewing" the medical data, decided that eight days of hospitalization were sufficient. The hospital chart and the discharge summary in this case clearly indicated the special problems involved, and included a reference to the literature in which the method of treatment was described. Clearly this chart was not reviewed or understood by the Medicaid staff.

Certainly, no sane physician would have discharged this patient within the eight days allowed by Medicaid.

The Medicaid computer generated letters which then made it necessary for the hospital utilization committee to review the case and to request that I write a letter to the administrator, for further review and transmittal to Medicaid.

We are about to enter into an era of the most enormous bureaucratic interference with the practice of medicine imaginable. Decisions are being made arbitrarily by people totally unfamiliar with medical matters, and in accordance with economic guidelines set up by a nearly bankrupt state government. The result of this bungling and interference is to place additional unbearable demands upon those of us from the health care profession who would sooner be rendering patient care than writing letters and filling out forms. The liability for rendering the type of inadequate care demanded by the "Medical Advisory Staff" rests with the treating physician. Perhaps we should entrust the care of Medicad patients to that staff, the computer, and those state agencies which seek to tell us after the fact that we have not rendered treatment within their unrealistic guidelines.

The medical profession must seek action and relief now if our patients are to receive the quality of medical care which we are capable of rendering.

(Signed) Rogert A. Goldstone, M.D.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

May

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Frday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
Weekdays, 12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

12 **Anesthesia Conferences**
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

12 **Office Treatment of Depression**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

12 **Monthly Neuro-Radiology Meetings**
7:45-10:15 p.m. — Morristown Memorial Hospital
(Sponsored by Radiological Society of New Jersey)

12 **Recent Advances in Pulmonary Disease**
11:30 a.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

12 **Chronic Renal Failure**
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

12 **Neurology Symposium**
8:30 a.m.-4 p.m. — Englewood Hospital
(Sponsored by Englewood Hospital Association and Academy of Medicine)

12 **Nuclear Cardiovascular Studies**
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital, Lyons and Academy of Medicine)

12 **Conferences in Endocrinology**
19 3:30-5 p.m. — Location to be announced
26 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, Newark Beth Israel Medical Center and Academy of Medicine)*

12 **Clinical Neurology — 1976**
19 11 a.m. — Alexian Brothers Hospital, Elizabeth
26 *(Sponsored by Neurological Associates and AAFP)*

12 **Perinatal Seminars**
19 9:30 a.m.-2 p.m. — Newark Beth Israel Medical Center
(Sponsored by Newark Beth Israel Medical Center)

12 **Intestinal Absorption and Malabsorption**
19 **The Future of Allergy**
26 **Office Use of Antibiotics**
9:00-11:00 a.m. — Middlesex General Hospital, New Brunswick
(Sponsored by Middlesex General Hospital and Academy of Medicine)

12 **Continuing Medical Education**
19 10:30-11:30 a.m. — Clara Maass Memorial Hospital, Belleville
26 *(Sponsored by Clara Maass Hospital and AAFP)*

12 **Medical Lecture Series**
14 1-3:30 p.m. — Greystone Park Psychiatric Hospital
19 *(Sponsored by Greystone Park Psychiaric Hospital and*
28 *Academy of Medicine)*

13 **Management of Hyperlipidemias**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13 **Genetics**
11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

13-15 **Rational Drug Therapy in Cardiovascular Disease, II**
9 a.m.-5 p.m. — Nassau Inn, Princeton
(Sponsored by American College of Cardiology and AAFP)

13 **Basic Sciences and Clinical Applications**
20 Burlington County Memorial Hospital, Mt. Holly
(Sponsored by Burlington County Memorial Hospital and AAFP)

13 **Topics in Oncology**
20 1:30-2:30 p.m. — Martland Hospital, Newark
27 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

13 **Medical Lecture Series**
18 11 a.m.-12 noon — Greystone Park Psychiatric
20 Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

13 **Liver Disease and Ascites, Part I**
20 **Does Psychiatry Exist?**
27 **Transcendental Meditation**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

14 **Family Practice Review**
21 Freehold Area Hospital, Freehold
28 *(Sponsored by Freehold Area Hospital and AAFP)*

15 **Inflammatory Bowel Disease**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 **Advances in Orthopedic Surgery**
22 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
29 School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

16 **Gynecological Endocrinology**
9 a.m. — morning session; 2 p.m. — afternoon session
The Landmark Inn, Route 1 and 9, Woodbridge
(Sponsored by CMDNJ and Lederle Laboratories)

17 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

17 **Endocrine Conferences**
24 11 a.m. — Elizabeth General Hospital, Elizabeth
(Sponsored by Elizabeth General Hospital and AAFP)

17 **Distinguished Lectures in Surgery**
24 4-5 p.m. — Martland Hospital Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

18 **Topics in Neurosurgery**
25 4-5 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, East Orange, and Academy of Medicine)

18 **Tumor Conferences**
25 11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

18 **Drug Addiction**
12 noon — Hospital Center at Orange
(Sponsored by Hospital Center at Orange and Academy of Medicine)

18 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

18 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

18 Headache
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

18 Cardiac Complications of CNS Drugs
1-3 p.m. — Ancora Psychiatric Hospital, Hammonton
(Sponsored by Ancora Psychiatric Hospital and Academy of Medicine)

18 Common Medical Problems
8 a.m. — So. Ocean County Hospital, Manahawkin
(Sponsored by Burlington County Hospital and AAFP)

18 Problem Family Case Presentations
9-11:30 a.m. — Rutgers Medical School, Piscataway
(Sponsored by CMDNJ-Rutgers Medical Schools and AAFP)

19 Psychiatric Case Conferences
25 7:30 a.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital)

19 Pediatric Guest Lectures
6:30 p.m. — St. Francis Medical Center, Trenton
(Sponsored by St. Francis Medical Center and AAFP)

19 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

19 Diabetes Mellitus
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

19 Perinatal Seminars
9:30-11:30 a.m. and 1-2 p.m. — Newark Beth Israel Medical Center, Newark
(Sponsored by Newark Beth Israel Medical Center and Academy of Medicine)

19 New Developments in Scanning
Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

19 Value of Renal Determination in Hypertension
11 a.m.-12 noon — Morristown Memorial Hospital
(Sponsored by Morristown Memorial Hospital and Academy of Medicine)

19 Cardiology Conferences
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

19-21 Emergency Medicine Conferences
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

20 Radiology
7:15-10:15 p.m. — Hospital Center at Orange
(Sponsored by Academy of Medicine and Radiological Society of New Jersey)

20 Postgraduate Symposia in Surgery
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine, and AAFP)

21 Management of Hepatitis
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

21 Management of End-Stage Renal Disease
2 p.m. — Cherry Hill Medical Center
(Sponsored by Cherry Hill Medical Center and Academy of Medicine)

21 Abnormalities in Growth Patterns in Childhood and Adolescence
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

25 Clinical Pathological Conferences
1 p.m. — Trenton Psychiatric Hospital
(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)

25 Drug Addiction
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

25 Inter-Sexuality, Hypospadias in Male, and Ambiguous Genitalia
7-10 p.m. — Englewood Men's Club
(Sponsored by Englewood Hospital Association and Academy of Medicine)

25 Perinatology and Neonatology Seminar
7 p.m. — Saddle Brook General Hospital
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

26 Advances in Management of Learning Disabilities
9-11 a.m., 12:30-3:30 p.m. — St. Clare's Hospital, Denville
(Sponsored by St. Clare's Hospital and Academy of Medicine)

26 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

26 Annual Awards Dinner — AMNJ
6:30 p.m. — The Chanticler, Millburn
(Sponsored by Academy of Medicine)

26 Child Abuse Revisited
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

27 In Vitro Studies of Erythropoiesis
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

27 **Ureteral Injury with Updated Repair Techniques**
12 noon-1 p.m. —St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

28 **Thyroid Diseases**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital and Academy of Medicine)

June

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

1 **Lecture Series**
11 a.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

1 **Medical Lecture Series**
15 11 a.m.-12 noon — Greystone Park Psychiatric
17 Hospital
22 *(Sponsored by Greystone Park Psychiatric Hospital*
29 *and Academy of Medicine)*

1 **Topics in Neurosurgery**
8 4-5 p.m. — VA Hospital, East Orange
15 *(Sponsored by CMDNJ-New Jersey Medical School,*
22 *VA Hospital, and Academy of Medicine)*
29

1 **Psychiatric Case Conferences**
8 7:30-9:30 a.m. — Trenton Psychiatric Hospital
15 *(Sponsored by Trenton Psychiatric Hospital and*
22 *Academy of Medicine)*
29

1 **Tumor Conferences**
8 11 a.m.-12 noon — Morristown Memorial Hospital
15 *(Sponsored by Morristown Memorial Hospital and*
22 *Academy of Medicine)*
29

2 **Computerized Axial Tomography**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

2 **Obstructive Lung Disease**
1:00 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

2 **Clinical Neurology — 1976**
11 a.m. — Alexian Brothers Hospital, Elizabeth
(Sponsored by Neurological Associates and AAFP)

2 **Cardiology Conferences**
16 4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

3 **Advances in Neurology — 1976**
10 **Historical Forces Affecting Psychiatry**
17 **Neurological Examination for Psychiatrists and Internists**
24 **Quality Assurance in Psychiatric Hospitals**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

3 **Topics in Oncology**
10 1:30-2:30 p.m. — Martland Medical Unit, Newark
17 *(Sponsored by CMDNJ-New Jersey Medical School*
24 *and Academy of Medicine)*

3 **Gynecological Laparoscopy**
4 9 a.m.-5 p.m. — First Day
8 a.m.-3 p.m. — Second Day, Memorial General Hospital, Union
(Sponsored by New Jersey Fertility Foundation and Academy of Medicine)

4-8 **MSNJ Annual Meeting**
Cherry Hill Hyatt House
Cherry Hill

4 **Fluid and Electrolyte Imbalance**
8:30 a.m. — United Hospitals of Newark
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

4 **Peripheral Vascular Disease**
12 noon-1 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

4 **Medical Lecture Series**
11 1-3:30 p.m. — Greystone Park Psychiatric Hospital
18 *(Sponsored by Greystone Park Psychiatric Hospital*
25 *and Academy of Medicine)*

5 **Annual Governor's Conference**
9:45 a.m.-12 noon — Hyatt House, Cherry Hill
(Sponsored by The Medical Society of New Jersey)

5 **Advances in Orthopedic Surgery**
12 8:30-11:30 a.m. — CMDNJ, New Jersey Medical
19 School, Newark
26 *(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)*

6 **Scientific Sessions — MSNJ Annual Meeting**
7 Hyatt House, Cherry Hill
(Sponsored by MSNJ and related specialty societies)

6 **Family Practice (MSNJ Sections)**
7 Hyatt House, Cherry Hill
(Sponsored by MSNJ and AAFP)

7 **Thyroid Diseases**
8 p.m. — Community Memorial Hospital, Toms River
(Sponsored by Community Memorial Hospital and Academy of Medicine)

7 **Endocrine Conferences**
14 11 a.m. — Elizabeth General Hospital, Elizabeth
21 *(Sponsored by Elizabeth General Hospital and AAFP)*
28

8 **Tuberculosis**
11 a.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

8 Trauma and the Emergency Department
9 p.m. — Bayonne Hospital
(Sponsored by Bayonne Hospital and Academy of Medicine)

8 Acute Renal Failure
8 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Nephrology Society of New Jersey, N. J. RMP, and Academy of Medicine)

9 Thanatology
1:30 p.m. — John E. Runnells Hospital, Berkeley Heights
(Sponsored by John E. Runnells Hospital and Academy of Medicine)

9 Anesthesia Conferences
8-9 p.m. — West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital and University of Pennsylvania School of Medicine)

9 Mechanisms in Cardiac Failure in Coronary Artery Disease
10-11 a.m — St. Joseph's Hospital, Paterson
(Sponsored by Mt. Sinai School of Medicine and St. Joseph's Hospital)

10 Advances in Pediatric Surgery
12:30-1:30 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

11 Gastroenterology
1:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

12 Antibiotics and Surgical Infection
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

15 Joint Neurological-Neurosurgical Conferences
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 Radiology of Genitourinary Disease
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 Infertility
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

15 Common Medical Problems
8 a.m. — Southern Ocean County Hospital, Manahawkin
(Sponsored by Burlington County Memorial Hospital and AAFP)

16 Occlusive Vascular Disease
5-8:30 p.m. — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center, AAFP, and Academy of Medicine)

16 Pediatric Guest Lectures
6:30 p.m. — St. Francis Medical Center, Trenton
(Sponsored by St. Francis Medical Center and AAFP)

16 Update on Psychotropic Drugs
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

16 Laboratory Interpretations
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 Special Problems in Neurology
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 Postgraduate Symposia in Surgery
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

18 Orthopedic Problems
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

18 Photographic Panorama of Pediatric Problems
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

21 Medical Lecture Series
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital)

22 Perinatology and Neonatology Seminar
7 p.m. — Somerset Hospital, Somerville
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

22 Management of Hypertension
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23-25 Emergency Medicine Conferences
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

23 Causalgia
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

23 Visiting Lectures in Ophthalmology
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

July

1 Pulmonary Embolism, Part I
8 Pulmonary Embolism, Part II
15 Electrocardiogram of the Middle-Aged
22 The Modern Medical School and Patient Care
29 Child Abuse
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

27 Thyroid Today
8-9 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

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*First Health and Nutrition Examination Survey, DHEW Pub. No. (HRA) 74-1219-1, National Center for Health Statistics, Rockville, Maryland. (This report indicates that approximately 95% of the children 1-5 years old had iron intakes *below* the standard set by the Food and Nutrition Board of the National Academy of Sciences.)

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Page 468 for Personnel Needs

Page 468 for Available Office Space

Page 469 For Classified Advertisements of Members

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OBITUARIES

Dr. Armand C. Grez

On March 22 Armand C. Grez, M.D., of Spring Lake, died at his home. Born in 1910 in Santiago, Chile, Dr. Grez received his undergraduate education from Georgetown University and his medical degree from Temple University in 1939; he took graduate work at the Curie Institute in Paris and, under a Pack fellowship, at Memorial Hospital in New York. He had practiced surgery in both New York and New Jersey and was affiliated with Memorial Hospital in New York and Jersey Shore Medical Center in Neptune. Dr. Grez was a Fellow of the International College of Surgeons and a member of the American Society of Abdominal Surgeons, and was a charter member of the National Acupuncture Research Society.

Dr. Douglas W. Kramer

One of Union County's senior members, Douglas W. Kramer, M.D., died on March 19th. Born in New York City in 1909, Dr. Kramer was a graduate of St. Louis University Medical School, class of 1933. After graduate study he pursued a career in ophthalmology and otolaryngology in Plainfield until his recent retirement. Dr. Kramer had been on the attending staff at Muhlenberg Hospital in Plainfield.

Barney D. Lavine, M.D.

On March 27, Barney D. Lavine, M.D., died after a long illness. Dr. Lavine was a practicing physician in Trenton for 60 years and chief of medicine for 36 of those years at St. Francis Medical Center. During his early career he was a general practitioner and obstetrician and was active in the establishment of baby clinics in the Trenton area. Born in 1892, Dr. Lavine was a native Trentonian and received his medical degree from Jefferson Medical College in 1914. He was a Fellow of the American College of Physicians and had been granted Society emeritus membership status through the Mercer County Medical Society. He was a recipient of MSNJ's Golden Merit Award in 1964.

Dr. Albert T. Lemay

The former chief of staff at St. Joseph's Hospital in Paterson, Albert T. Lemay, M.D., died there on March 12th. Dr. Lemay received his medical degree from the University of Vermont Medical School in 1928 and following internship he took graduate work in gynecologic surgery. He came to Paterson in 1936 and joined the staff at St. Joseph's Hospital at that time. In addition to active staff appointments culminating in Director of the Department of Gynecology, he was a member of the executive committee of the hospital for many years. He was board certified in his chosen field, a Fellow of the American College of Surgeons, a founding Fellow of the American College of Obstetricians and Gynecologists, and a member of the New Jersey Obstetrical and Gynecological Society and of the Academy of Medicine of New Jersey. Dr. Lemay was a Commander in the medical department of the U.S. Navy in World War II. He was 72 years old at the time of his death.

Dr. Troadio L. Soriano, Jr.

At the untimely age of 38, Troadio L. Soriano, Jr., M.D., died suddenly at his home. A graduate of Manila Central University Medical School in 1962, he came to Philadelphia for internship and remained for residencies in surgery at St. Joseph's Hospital, Philadelphia, and Martland Hospital Unit — CMDNJ, Newark. Dr. Soriano had offices in Morristown and was on the active staff of All Souls' Hospital there and at St. Clare's Hospital in Denville. He was a member of our Morris County component.

Dr. Franklin J. Tobey

We have just learned of the death on February 6 of Franklin J. Tobey, M.D., a member of our Essex County Medical Society. A graduate of the University of Pennsylvania School of Medicine in 1911, Dr. Tobey was a general practitioner in Newark until retirement in 1971. He had been associated with Presbyterian Hospital in Newark, East Orange General Hospital, and St. Mary's Hospital in Orange. He was a member of the Academy of Medicine of New Jersey and had served as its secretary in the 1930's and 1940's. Dr. Tobey was in the 90th year of age at the time of his death.

Dr. Walter M. Winters

One of Passaic County's senior members, Walter M. Winters, M.D., died on March 17th at his home. A native of Paterson, Dr. Winters was graduated from the University of Maryland Medical School in 1910, and did graduate work at Harvard University School of Medicine, Polyclinic and Mt. Sinai Hospitals in New York City, and the University of Berlin. He was a general practitioner with particular interest in pediatrics and was instrumental in establishing the first baby welfare stations in the Paterson area. He had been on the teaching staff at New York Polyclinic Hospital and on the attending staff at Passaic General Hospital. Dr. Winters retired from practice in 1958; he was 89 years old at the time of his death.

Dr. Ugo Boccaletti

Word has just been received of the death on July 27, 1975, while vacationing in Italy, of Ugo Boccaletti, M.D., a member of our Passaic County component. Dr. Boccaletti, a native of Rome, Italy, was graduated from the medical school of the University of Rome in 1962. Following a year of study in pediatric surgery at Trossau Hospital in Paris, he practiced in Rome until 1969 when he emigrated to the United States for a residency program in surgery at Columbia University, Harlem Hospital, Presbyterian Hospital, and Delafield Hospital in New York. He was associated with St. Joseph's Hospital in Paterson as general surgeon in the department of emergency medicine. Dr. Boccaletti was only 38 years old at the time of his death.

BOOK REVIEWS

Physician's Handbook. M. A. Krupp, M. J. Sweet, E. Jawetz, E. G. Biglieri, and R. L. Roe. Los Altos, California, Lange, 1976. Pp. 754. Illustrated ($8)

The 1976 edition of this classic pocket handbook, which first appeared in 1941, contains a wealth of diagnostic and therapeutic material. The present version, which has been revised and updated, includes 33 chapters, an appendix, and an excellent index.

While describing the technique for many useful procedures (from arterial puncture to Ziehl-Neelsen staining for acid-fast organisms), the manual manages to be humane. In the directions for sigmoidoscopy, for example, the authors admonish the participants as follows:

"The patient must be relaxed and the physician must be very gentle and reassuring."

In addition to the commonplace, the *Physician's Handbook* comprises (1) concise but useful paragraphs about singular topics such as calcitonin, mucormycosis, intravenous alimentation, (2) verities ("There is no evidence that vitamin E is essential in the diet of normal persons."), (3) a brief but useful chapter on medical genetics, including a glossary of genetic terms, and, of all things, (4) a reminder in Chapter 29 — Surgery (under preoperative care) to "be sure consent (for operation) is informed."

At $8 this mini-text, which also comes in Spanish, Italian, Portuguese, and Polish editions, is a bargain for medical students, house officers, and clinicians.

Arthur Krosnick, M.D.

Recovery from Alcoholism: A Social Treatment Model. Robert G. Bryant, M.D. and Henry L. Lennard, Ph.D. Springfield, Illinois, Thomas, 1973. Pp. 93. (Price not stated)

This slim volume describes an ongoing treatment program designed to change the physical and social context of the problem drinker. An initial inpatient stage of detoxification is followed by an active treatment program, consisting of group meetings, education about alcohol and other topics, counseling, physical recovery, and group recreation, lasting three to four weeks. In the outpatient phase, efforts are directed toward firm implantation within a new social network in addition to the maintenance and strengthening of family resources. A guiding principle is that alcoholism is controllable, not curable. Therefore, no endpoint of treatment is defined.

Counselors are alcoholics who have been dry for long periods of time. Patients run many of the services at the residential center. Interactions with other group members are encouraged in a dry setting, as contrasted to the previous social drinking milieu.

A successful treatment program promotes basic changes in life style, interrelationships, and daily activities. Relocation in a more alcohol-free environment, non-solitary living arrangements (preferably with other sober alcoholics), and provision for occupational and/or social activities are basic to remaining a dry alcoholic. Seventy-five percent of a sample of alcoholic patients in the program were dry, as contrasted to twenty-five percent sobriety among non-participants.

The practitioner may disagree with the emphasis on a social model as superior to a medical model. The authors make the unwarranted assumption that a medical model does not emphasize the social aspects of treatment sufficiently. Despite these reservations, the physician can benefit from such a reminder of the importance of social factors in drinking and its control.

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Journal of the Medical Society of New Jersey

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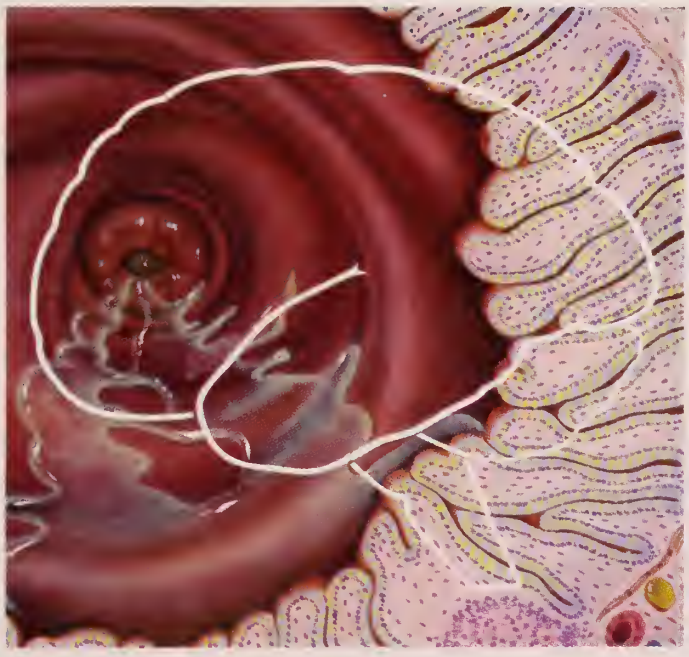

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Tribute to an Outstanding Irish Physician

I first met John J. McGuire in front of the elevators at Haddon Hall the year he decided to run for Second Vice-President of our Society. He knew I also had aspirations for that office, but he was frank enough to ask if I minded if he ran first. I am glad he did, even though he will be a hard President to follow.

He was indeed a lovable Irishman, full of many a yarn and the gift of gab. He made friends easily, regardless of another's faith or feelings. His faith ran deep — I have never known him to miss Mass when attending a convention or conference. If Sundays were filled with meetings, he always went to church on Saturday night, even if it meant missing part of a party.

John McGuire was, as all good Irishmen are, a talker. He said in his inaugural address, "communication is a transaction, a give and take in both directions." His favorite words of advice in dealing with a problem were: "confrontation, deliberation, communication." He could disagree without being disagreeable. Many were the times we teased each other about our opposing views on second surgical assistants. His forthright arguments will be missed by the State Board of Medical Examiners, where he served as Secretary. He will be missed even more at the monthly meetings of our Board of Trustees where this East Orange surgeon, named by St. Patrick's Guard of Honor of New Jersey as "The Outstanding Irishman of 1974" lightened our meetings with his Gaelic stories, his quick wit, his pleasant chatter, and his cheerful disposition.

May God bless his family by filling the void he leaves with pleasant memories of his many accomplishments, and may Heaven be enriched by the presence of this good and gracious son of Erin.

John S. Madara, M.D.

EDITORIALS

John S. Madara, M.D.

John Stanger Madara is a personal physician of today who resembles the image of the "old fashioned family doctor" for whom the public seems to long. Our new President, however, is very much involved and has been since he finished two years of naval service in 1948.

Dr. Madara has practiced general medicine at his Salem office and at the Salem County Memorial Hospital since leaving the Navy and was chief-of-staff at his hospital in 1972. He has been a member of his county medical society (and its president in 1952-53), The Medical Society of New Jersey, and the American Medical Association since 1949. A review of his medical activities suggests that his middle name easily might be "Service."

Medical Examiner — Salem Public Schools, 1951-1968
Medical Society of New Jersey — Council on Legislation, 1959-1976; Judicial Council, 1964-1973; Committee on Medicine and Religion
Academy of Medicine of New Jersey — member since 1964
American Academy of Family Physicians — member since 1950; president of Salem chapter, 1956-1957
American Board of Family Practice — diplomate, since 1970
New Jersey Hospital Association — Board of Trustees, since 1973
American Hospital Association — physician-delegate, since 1974
Thomas Jefferson Medical College — clinical instructor in family medicine, since 1973

Born in Camden, John Madara was educated at Moorestown High School, Temple University, and Jefferson Medical College and returned to his hometown to serve a rotating internship at the Cooper Hospital. He married Ruth Janice Igoe in 1945, the year he was graduated from medical school. Ruth and John have two daughters, Joyce Lynn Bambrick and Marilyn Tilton, two sons, Glenn and Jay, and two granddaughters.

As if medicine and family life were not enough, Dr. Madara has been a member of the Salem Rotary Club since 1955 and was its president in 1961-1962. He has been a ruling elder of the First Presbyterian Church of Salem since 1954 and a teacher of the Adult Sunday School Class since 1967. In March, 1968, Dr. Madara was honored as the recipient of the United Fund President's Award. A.K.

Place the Shoe Where It Fits

A recent public announcement of drastic cuts in professional and nonprofessional personnel and services at one of New Jersey's leading health and rehabilitation centers, culminating in the protestational resignation of the medical director, sent shock waves through the public and the health community in the area. Why was such a thing happening? Who is at fault?

The five-year-old, 200-bed facility has served the five general hospitals in the area and has received patients from all over the state, as well. The quality and quantity of its services have been good and its humanity has been beyond question. Despite the apparent best efforts of the staff the census of patients had to be reduced to 80 percent or less of capacity. The financial

director reported fiscal losses annually since its opening with a half-million dollar deficit last year and almost the same in the current year. Have these figures sent chills up the spine of some "profiteering" businessman taking advantage of government support of health services? Not at all! This center is a non-profit institution controlled and subsidized by the Church! It may close its doors soon.

The problem is simply a matter of "cash flow" — dollars and cents coming in and services being rendered. Medicaid pays $25 and Medicare $55 daily for each eligible patient given skilled professional services. The stipend is $70 per day for patients undergoing rehabilitation therapy. These per diem rates are *less than* the actual cost to provide the services in each of these categories. The government officials know this because they are required by law to audit the books of all such organizations. It is perfectly obvious that no institution — profit or nonprofit — can continue to provide services which cost more than they can afford. Who should subsidize the losses engendered by government officials' refusal to exercise complete leadership responsibility? Should it be the Church, the rich, the business community, the doctors and nurses, or someone else?

Government officials regularly inspect skilled nursing homes for cleanliness, record-keeping, safety, quality and quantity of services, and many other major and minor flaws — some of which dissolve into "nit-picking." In their oft-times blind criticism they demand *more* services, never considering that they are adding to an already intolerable financial burden. For example, a cautious nutrition inspector recently demanded an additional five minutes per patient per day of nutritionist time in a nursing home. In so doing she added hundreds of thousands of dollars to New Jersey's health bill, which would be expanded to millions of dollars nationally if such a requirement spread.

Another example of fiscal irresponsibility is the requirement of the U.S. Department of Health, Education, and Welfare that all skilled nursing facilities employ a full or part-time medical director by January 2, 1976. The American Medical Association and the American Health Care Association asked for delay of the regulation but were refused. Of course, Medicare's reimbursement covers only its share of the daily costs which is determined by the percentage of beds occupied by Medicare patients. On a national basis that amounts to only three to four percent of all long-term care beds. Thus the institutions are required to find the other 96 to 97 percent of the medical director's salary. This means that a federal regulation establishes an intolerable situation, the burden of which is cast on non-federal shoulders.

Such madness — unbridled demands for high quality and high quantity services for less-than-cost repayment — is destroying the institutions which are struggling to provide health care at all levels. This includes the university hospital, the community hospital, the rehabilitation center, the skilled nursing facility, and the custodial nursing home. If the trend continues, the great hopes for the health of the aged and the poor of a decade ago surely will go down the drain with the waste water. If that does occur, the responsibility will rest with those government officials — state and federal — who persist in utilizing the health institutions as whipping posts to explain away their own fiscal, moral, and leadership dereliction.

A.K.

What Is Necessary?

In the public press and other media, America's surgeons were taken to task for the performance of unnecessary surgery and — after unscientific extrapolation of the results of a single imperfect study — of killing thousands of patients. Despite this chapter of the present "knock the medical profession" brouhaha, not many operation schedules seemed to evaporate suddenly. Surgeons did not have a surfeit of time because their patients had second thoughts. Does this mean these "victims" of unnecessary surgery do not read *The New York Times*? Does it say that patients trust their own physicians and surgeons more than they believe Ralph Nader's Dr. Sidney Wolfe? Perhaps both!

What is necessary anyway? Who is best able to define necessary or unnecessary treatment — whether it be medical or surgical? If, as Wolfe claims, "up to 3.2 million needless operations" are performed in this country each year, then one can say that *most* drug therapy is needless. Unnecessary therapy is any treatment performed to correct less than life-threatening situations according to these critics. Thus, the trillions of doses of aspirin, antihistamine drugs, antacids, decongestants, arthritis medications, and so on, which are consumed daily, are nonessential. Given time, most headaches subside, ulcers heal, and hives disappear. Though these medications hasten recovery, they are not without risk. Aspirin occasionally causes gastric erosions, some antacids in combination with excessive milk produce hypercalcemia, and antihistamines have the potential for producing four-and-a-half pages of harmful drug interactions with other prescribed and over-the-counter proprietary preparations.[1]

In the current tradition of "informed consent," we must explain the hazards of treatment, and the dangers of no-treatment. We must then permit the patient to make a choice — take the drug or the operation and take your chances. Or, *don't take the drug or the operation and take the consequences!*

Obviously, the choice is easy in a few instances — cancer, hip fractures, bowel obstruction, acute appendicitis with signs of peritonitis, major hemorrhaging, and so on. Even the consumer advocates will probably take surgery over no-surgery. How about treatment of a convulsive disorder? Diphenylhydantoin can produce a devastating bone marrow depression. Is the danger of photo-sensitivity worth the control of acne with tetracycline? People rarely die from convulsions and never from acne. Are these treatments necessary?

Augmentation mammoplasty may be cosmetic for many — and therefore unnecessary — but how about correction of a cleft lip and cleft palate? What *New York Times* reporter would deny his child this luxury as an unnecessary operation?

Anti-medical criticism of this ilk makes good copy these days. It sells newspapers and fills dead air-time on the 11 p.m. television news. Does it do anything constructive? Not much that is readily apparent. Is it harmful? It probably makes the anxiety-prone neurotic more so, gives further fuel to the litigious element of our society and — worst of all — encourages those who need early medical or surgical treatment the most to procrastinate to their ultimate detriment. A.K.

[1]Martin EW: *Hazards of Medication.* Philadelphia, Lippincott, 1971.

Original Cover Art Available

William Arthur Smith is offering an edition limited to fifty signed original impressions from the wood blocks of the bicentennial cover of *The Journal.* They are done on handmade Mariki or mulberry fiber papers (which are particularly adaptable for wood cuts) in black, gray, and a subdued red. Each proof requires three baren-rubbed hand printings. The image measures approximately 18" x 30" on sheets varying in measurement from 24½" x 33½" to 25" x 37". The impressions are offered to collectors at $100; members of MSNJ may obtain these signed originals at $75 each. Please place your order directly with the artist whose address is Windy Bush Road, Pineville, Pennsylvania 18946.

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*First Health and Nutrition Examination Survey, DHEW Pub. No. (HRA) 74-1219-1, National Center for Health Statistics, Rockville, Maryland. (This report indicates that approximately 95% of the children 1-5 years old had iron intakes *below* the standard set by the Food and Nutrition Board of the National Academy of Sciences.)

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†due to susceptible organisms

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- Effective in nonobstructed cystitis.
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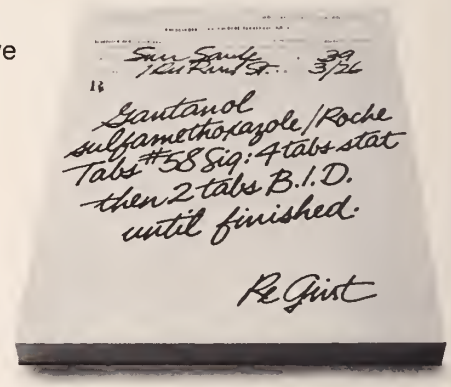
- Contraindicated during pregnancy and the nursing period and in infants under 2 months of age.
- As with all sulfonamides, adequate fluid intake should be maintained during therapy; perform frequent CBC's and urinalyses with careful microscopic examination.



*due to susceptible organisms

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Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily nonobstructed pyelonephritis, pyelitis and cystitis) due to susceptible organisms, usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris.* **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and sclera injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

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ORIGINAL ARTICLES

Selective mesenteric angiography over the past decade has come to play a larger role in the diagnosis of patients with gastrointestinal hemorrhage. Selective celiac and mesenteric angiographies allow the localization of bleeding sites within the gastrointestinal tract in up to two-thirds of patients with upper and lower gastrointestinal bleeding. Selective infusion of vasoconstrictor agents following angiography provides a method for control of bleeding in a significant number of patients. Representative case reports are included to illustrate these principles.

Angiography in Gastrointestinal Hemorrhage

A Review

Edwin S. Wilson, M.D./Mount Holly*

Over the past decade, abdominal angiography has assumed a new and exciting role in the diagnosis and treatment of patients with gastrointestinal bleeding. Rapid advances in catheter techniques over this period have allowed the angiographer to play a greater part in the management of patients admitted to the hospital with gastrointestinal bleeding. Prior to these developments, patients with bleeding from the gastrointestinal tract often presented a problem to the clinician because of the failure of conventional radiographic techniques to establish a precise diagnosis. Standard barium procedures did not demonstrate a bleeding site in 20 percent of patients with upper gastrointestinal bleeding.[1] Even when a potential source of bleeding was demonstrated, it could not be assumed with absolute certainty that the lesion was indeed the etiologic mechanism for the bleeding episode. Even more perplexing were the occasions when multiple lesions were demonstrated. Surgery failed to disclose the bleeding site in 20 percent of patients with hematemesis, and up to 70 percent of patients with melena.[2]

These problems led investigators to seek other solutions. Margulis, *et al.*, in 1960, successfully demonstrated a bleeding cecal arteriovenous malformation using operative mesenteric angiography.[3] In 1965, Baum and Nusbaum were able successfully to localize sites of gastrointestinal hemorrhage preoperatively using celiac and mesenteric angiography.[4] Since that time, numerous investigators have reported the use of angiography to localize bleeding sites throughout the gastrointestinal tract. The purpose of this paper is to review some of the more pertinent principles of celiac and mesenteric angiography in the diagnosis and treatment of gastrointestinal hemorrhage, and to illustrate these points when feasible by representative case reports from the angiography service of a busy community hospital.

Case Reports

Case 1 — A 43-year-old male was transferred to the hospital from an outlying hospital for the diagnosis and treatment of gastrointestinal hemorrhage. The patient had a history of hematemesis and melena for 24 hours prior to admission to the hospital, as well as similar episodes in the past. He acknowledged a heavy alcohol intake, and physical examination disclosed icterus, hepatosplenomegaly, and ascites. Hemoglobin on admission was 9.0 grams, and total bilirubin was 2.8 mg. per 100 ml. Upper gastrointestinal series at the referring hospital revealed esophageal varices. The patient was referred for emergency angiography. Aortography, celiac and mesenteric angiographies revealed no bleeding site, and a presumptive diagnosis of bleeding esophageal varices was made. The catheter was placed within the superior mesenteric artery, and infusion of vasopressin begun at the rate of 0.2 units per ml. per minute. Repeat angiography confirmed adequate vasoconstriction, and infusion was continued at 0.2 units per minute using a Sigmamotor infusion pump. Bleeding was controlled within 12 hours, but recurred within 24 hours. Vasopressin infusion was restarted, at the previous rate and in combination with balloon tamponade of the esophagus. Bleeding was controlled, and the catheter was removed 24 hours later.

The patient was scheduled for elective portocaval shunt procedure. As the portal vein was poorly visualized by

*This study is from the Burlington County Memorial Hospital in Mount Holly, New Jersey, where Dr. Wilson is director of the department of radiology.

antegrade study during celiac angiography, it was elected to visualize the splenic and portal veins by splenoportogram to exclude extrahepatic obstruction and assure an operable arrangement of the venous anatomy. Percutaneous catheter splenoportogram was performed, and revealed patency of the portal vein, and evidence of portal hypertension (Figure 1). Portocaval shunt was performed two days later without complication. Portal pressure was recorded at 340 ml. saline, and 220 ml. of saline after the procedure. Within 24 hours after surgery, gastrointestinal bleeding recurred, and there was serious concern regarding thrombosis of the shunt. Emergency celiac and mesenteric angiographies were performed, and no bleeding point was demonstrated. However, the portocaval anastomosis was demonstrated with no evidence of thrombosis. Because of the recent surgical anastomosis, vasopressin infusion was deferred and bleeding was controlled by esophageal tamponade within 24 hours. The patient was discharged 10 weeks after admission.

Comment: This patient illustrates the many problems of the bleeding patient with esophageal varices. The initial bleeding episode was controlled by vasopressin infusion, but recurred. Recurrent bleeding is common with esophageal varices, and recurrent variceal hemorrhage occurred in 38 percent of patients reported by Conn, *et al.*[5] Bleeding can often be controlled in this group of patients, but morbidity and mortality is significant. Although not utilized in this patient, vasopressin infusion is of value during surgery to decrease blood loss and facilitate the dissection.[6] Angiography was used to visualize the portocaval anastomosis in this patient to exclude thrombosis (Figure 2).

Figure 1 — Case 1 — Splenoportogram demonstrates patent splenic and portal veins (closed arrows), as well as large esophageal varices (open arrow).

Figure 2 — Case 1 — Venous phase of mesenteric angiogram demonstrates opacification of mesenteric and portal veins (open arrows) and the anastamosis with the vena cava (closed arrow).

Case 2 — A 39-year-old male was admitted to the hospital because of hematemesis. He admitted to periodic epigastric pain, relieved by antacids. Admission blood pressure was 150/72 mm. Hg. and apical pulse was 107 per minute. Admission hemoglobin was 10.1 grams, but other laboratory studies were normal. Upper gastrointestinal series revealed a deformed duodenal bulb with ulceration. Medical therapy was instituted, but abdominal pain did not completely subside. Ten days later, severe abdominal pain and hematemesis recurred suddenly. The patient became hypotensive, and emergency surgery was performed. At laparotomy, a bleeding penetrating duodenal ulcer was found. Partial gastrectomy, gastrojejunostomy, and vagotomy were performed. Ten days following surgery, hematemesis recurred and the patient was referred for emergency angiography which was performed by Seldinger technique and disclosed a large 3 by 4 cm. bleeding ulcer within the gastric remnant (Figures 3, 4, 5). Because of the size of the ulcer, the surgeon could not be convinced of the potential benefit of vasopressin infusion and elected for surgery. Operation confirmed the presence of a large penetrating ulcer of the gastric remnant with active bleeding. Total gastrectomy was performed, and over 30 units of blood were administered during the procedure. The patient was discharged five weeks later.

Comment: In contrast to variceal bleeding, arterial bleeding from the gastrointestinal tract allows demonstration by angiography in a high percentage of cases. Conn, *et al.* noted a positive diagnosis by angiography in 92 percent of patients with non-variceal hemorrhage.[5]

Figure 3 — Case 2 — Aortogram reveals faint blush of contrast medium in left upper quadrant (arrow).

Although the pharmacologic control of hemorrhage is frequently obtained, bleeding from large arteries may be resistant to vasoconstrictor infusion. Of special interest is the study of Rösch, *et al.* where bleeding was controlled in only two of thirteen patients (15 percent) with upper gastrointestinal hemorrhage from peptic ulcer.[7] Despite this, vasoconstrictor infusion should be considered whenever a bleeding site is localized by angiography, if only to decrease the transfusion requirements prior to surgery.[5] This is especially true in older patients, where the operative mortality may be significant.

Figure 4 — Case 2 — Selective celiac angiogram shows postoperative deformity and straightening of the splenic artery, and extravasation of contrast from the short gastric arteries (arrows).

Figure 5 — Case 2 — Late film from the celiac angiogram reveals persistent contrast within the stomach.

Figure 6 — Case 3 — Barium enema reveals diverticula and deformity of the colon.

Case 3 — A 54-year-old female was admitted to the hospital in shock with massive lower gastrointestinal hemorrhage. She denied abdominal pain. A previous barium enema revealed diverticulosis of the colon (Figure 6). Physical examination disclosed left lower quadrant tenderness. Rectal examination revealed gross blood with large blood clots. Hemoglobin on admission was 11.2 grams, but laboratory studies were normal. Blood was administered, and blood pressure stabilized at 120/90 mm. Hg. Four hours later, rectal bleeding recurred, and the patient became hypotensive. Gastroscopy was normal and the patient was referred for emergency mesenteric angiography. Celiac and superior mesenteric angiographies were normal, but inferior mesenteric angiography demonstrated a localized bleeding site within the distal descending colon (Figure 7A and B). A barium enema performed five years previously demonstrated diverticula within this segment of the colon. The catheter was placed in the inferior mesenteric artery, and infusion of vasopressin was performed at the rate of 0.2 units per minute using a Sigmamotor pump. Hemostasis was achieved, and the patient taken to surgery for subtotal colectomy. The postoperative course was complicated by leg thrombophlebitis and pulmonary embolism, but there was no further rectal bleeding.

Comment: Bleeding from diverticula is the most common cause of lower gastrointestinal hemorrhage. These patients are usually elderly, and the operative mortality in this group may be significant. Mesenteric angiography allows the preoperative localization of a bleeding site, as well as the approach for therapeutic infusion of vasoconstrictor drugs. This may cause complete cessation of bleeding, or decrease the blood replacement requirements prior to surgery.[5] Baum, *et al.* were able to achieve complete control of bleeding in all fifteen patients with diverticular hemorrhage treated by arterial infusion.[8] The effectiveness of the infusion and the dose rate should be evaluated by repeat mesenteric arteriogram following a short infusion of vasopressin to titrate the dose rate required to produce hemostasis.

Case 4 — A 74-year-old male was admitted to the hospital with a 24-hour history of rectal bleeding. He had a previous history of duodenal ulcer, but denied recent abdominal pain. Physical examination was normal. Hemoglobin on admis-

Figure 7A — Case 3 — Inferior mesenteric angiogram with extravasation of contrast medium early in the injection (arrow).

Figure 7B — Case 3 — Later film with greater extravasation of contrast medium into the lumen of the colon.

sion was 11.6 grams, but laboratory studies were otherwise normal. Bleeding continued after admission, and the patient was referred for angiography. Superior mesenteric angiography revealed a vascular stain within the colon, supplied by the right colic branch of the mesenteric artery (Figure 8A, B, C). Barium enema was then performed, and demonstrated a constricting lesion within the hepatic flexure (Figure 9), subsequently confirmed as carcinoma of the colon.

Comment: Although diverticula of the colon are the most likely sources of bleeding from the lower gastrointestinal tract, angiography may reveal other lesions, such as neoplasm, fistula, arteriovenous malformation, and inflammatory lesions of the colon.[9]

Figure 8A — Case 4 — Subtraction film of superior mesenteric angiogram reveals multiple small vessels arising from the right colic branch of the S.M.A.

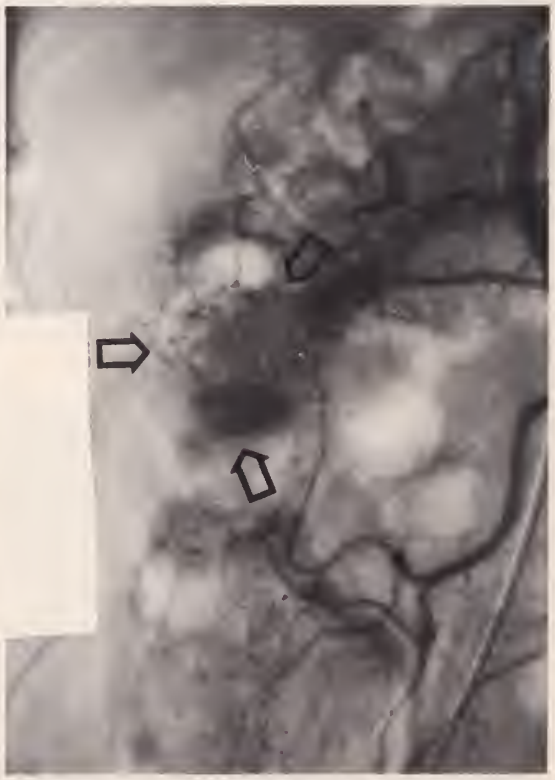

Figure 8B — Case 4 — Later arterial phase demonstrates focal area of abnormal vessels, and a faint blush of contrast medium (arrow).

Figure 8C — Case 4 — Late film demonstrates persistent blush of contrast (open arrow) and large draining veins (closed arrows).

Figure 9 — Case 4 — Oblique film of the hepatic flexure during barium enema reveals a constricting lesion of the hepatic flexure (arrows).

Case 5 — A 75-year-old female was admitted because of anemia from gastrointestinal bleeding, the cause of which was undetermined. She had been admitted to the hospital on multiple previous occasions for gastrointestinal bleeding, with numerous normal examinations of the upper and lower gastrointestinal tract. The patient gave a history of aortic stenosis. Hemoglobin on admission was 10.2 grams, and the stool was positive for occult blood on several occasions. The physical examination revealed a harsh systolic ejection murmur over the entire precordium, with radiation to the neck. Physical examination was otherwise unremarkable. Celiac and mesenteric angiographies were requested to evaluate this obscure gastrointestinal bleeding. Celiac angiography was normal, but superior mesenteric angiography demonstrated a group of small, tortuous arteries arising from the ileocolic branch of the superior mesenteric artery, along the medial wall of the cecum (Figure 10). This finding was also present on subtraction films, and later films from the series revealed simultaneous filling of this group of arteries and a draining vein (Figure 11A and B). Resection of this segment of the colon was curative, and no further bleeding has occurred.

Comment: Lower gastrointestinal bleeding most usually occurs from diverticula, but may arise from tumor, colitis, and arteriovenous malformation.[9] Galloway, *et al.* have noted the occurrence of bleeding from arteriovenous malformations of the right colon of patients with aortic stenosis.[10] This patient illustrates the value of angiography in that group of patients.

Discussion

The use of angiography in patients with gastrointestinal hemorrhage has developed over the past ten years, largely because of the frequent failure of conventional diagnostic techniques. Barium studies fail to reveal the source of bleeding in 20 percent of patients with upper gastrointestinal hemorrhage.[1] Margulis, *et al.* first

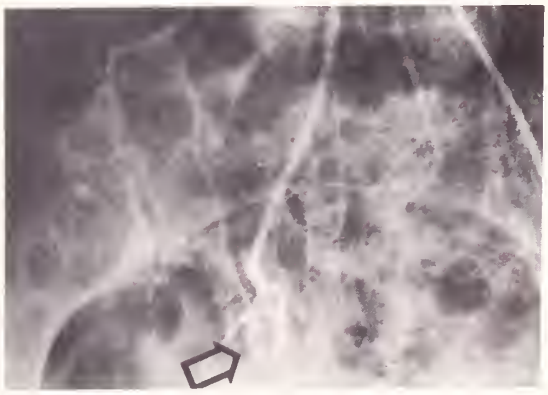

Figure 10 — Case 5 — Selective superior mesenteric angiogram reveals small group of tortuous arteries arising from the ileocolic branch of the S.M.A. (arrow).

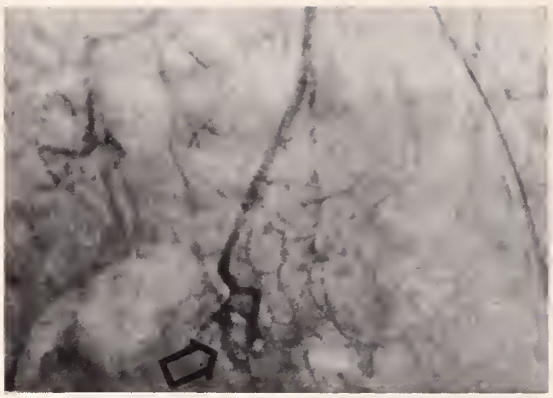

Figure 11A — Case 5 — Subtraction film during early arterial phase reveals the same group of small arteries.

Figure 11B — Case 5 — Later arterial subtraction film reveals simultaneous filling of the abnormal arteries (open arrow) and a draining vein (closed arrow) not seen earlier.

used angiography as a diagnostic tool, and successfully demonstrated a bleeding cecal arteriovenous malformation by operative mesenteric angiography.[3] Baum and Nusbaum used angiography to demonstrate artificially constructed bleeding sites in dogs in 1963, and two years later successfully applied this technique under clinical circumstances to demonstrate preoperatively bleeding sites in patients with gastrointestinal hemorrhage.[4, 11] Since then, numerous investigators have successfully used celiac and mesenteric angiography to localize bleeding lesions throughout the gastrointestinal tract.

The technique of angiography is well known, and has been described extensively in the literature.[4, 5, 7, 12, 13] The diagnostic accuracy of angiography in gastrointestinal bleeding depends upon several factors, including the type of lesion, the bleeding rate of the lesion, and the experience of the angiographer. Studies of Baum and Nusbaum indicate that bleeding rates as low as 0.5 ml. per minute may be recognized by selective angiography and serial filming.[11] Methylglucamine diatrizoate contrast medium is a potent vasodilator, which will increase splanchnic blood flow during mesenteric angiography. Casarella, *et al.* felt that this phenomenon improved the visualization of bleeding sites in some of their patients, and recommended a "priming dose" of 10 ml. of contrast medium thirty seconds prior to the main bolus injection during selective angiography to enhance visualization of occult bleeding lesions.[9] The diagnosis of gastrointestinal hemorrhage by angiography depends upon the extravasation of contrast medium into the lumen of the gut. This is seldom achieved in esophageal varices, but may be enhanced by selective left gastric angiography.[5, 6] A presumptive diagnosis of variceal hemorrhage is made in the bleeding patient with esophageal varices when a definite arterial bleeding site is not demonstrated by selective angiography. Actual extravasation of contrast from esophageal varices is difficult to demonstrate, due to the dilution of contrast medium within the enlarged splenic vascular pool. Conn, *et al.* achieved an overall diagnostic accuracy in angiography of 65 percent in those patients in whom the diagnosis could be confirmed by other means.[5] These investigators were able to demonstrate bleeding in only 30 percent of patients with variceal bleeding, but achieved a diagnostic accuracy of 92 percent in patients with arterial non-variceal bleeding.[5] Casarella, *et al.* demonstrated the bleeding site in 66 percent of patients studied by angiography for lower gastrointestinal hemorrhage.[9]

Baum and Nusbaum extended the application of mesenteric angiography in 1968, when they first reported the use of pharmacologic techniques to control bleeding in patients with gastrointestinal hemorrhage previously studied by angiography.[14] Intravenous vasopressin had been utilized previously in the medical management of patients with portal hypertension. However, the systemic administration of vasopressin requires repeated doses, eventually leading to tachyphylaxis and adverse cardiovascular effects.

Baum and Nusbaum offered an alternative by the direct arterial infusion of vasopressin by catheter following mesenteric angiography.[14] By this route vasopressin acts upon mesenteric circulation directly to reduce the splanchnic vascular bed, and is independent of the autonomic nervous system. In addition, systemic effects are less likely to occur by this method. In 1971, Baum and Nusbaum reported forty-eight patients treated by selective mesenteric infusion of vasopressin.[6] Twenty-eight of these patients were actively bleeding from esophageal varices, and bleeding was controlled in 96 percent by selective vasopressin infusion in dose rates between 0.1 to 0.3 units per minute.[6] The precise dose rate was determined by the response of the mesenteric circulation as recorded by angiography following vasopressin infusion. An adequate response was signaled by peripheral vasoconstriction with continued forward flow of contrast medium, and increased peripheral resistance and reflux of contrast medium into the aorta.[6] These same authors recommended the use of vasopressin infusion prophylactically during portocaval shunt surgery to decrease portal hypertension, decrease bleeding, and facilitate surgical dissection. They also reported six patients with non-variceal arterial bleeding from the upper gastrointestinal tract successfully treated by vasopressin infusion. Shortly thereafter, Conn, *et al.* reported thirty-five patients studied by mesenteric angiography and treated by selective vasoconstrictor infusion.[5] Control of bleeding was achieved in 79 percent of patients bleeding from esophageal varices, and 82 percent of patients with arterial bleeding sites. Recurrent bleeding episodes occurred in 38 percent of patients with bleeding esophageal varices. For this reason, it is prudent to leave the infusion catheter *in situ* for at least 12 to 24 hours after the bleeding is initially controlled. Recurrent bleeding occurred in only five percent of patients with non-variceal bleeding sites.[5]

In a more recent publication, Conn, *et al.*[17] reviewed the use of intra-arterial vasopressin by means of a prospective and controlled clinical trial with 60 episodes of upper gastrointestinal hemorrhage which occurred in fifty-three patients. This study confirmed that intra-arterial vasopressin was more effective than conventional modes of therapy in the control of hemorrhage. Bleeding was controlled in almost three-fourths of bleeding episodes by vasopressin infusion in patients with non-variceal and variceal hemorrhage. However, a disturbing feature of the study is that the overall survival was not increased by the use of vasopressin. Overall survival of patients given conventional therapy was 56 percent, whereas survival in the vasopressin group was 54 percent. The authors felt that the explanation for this apparent paradox was the serious nature of the underlying diseases in both groups of patients. Indeed, it appeared probable that many of the patients would not have survived the hospitalization, even if gastrointestinal hemorrhage had not occurred.

Bleeding from colon diverticula is the most common cause of lower gastrointestinal hemorrhage. These patients are usually elderly and the operative mortality may be significant. Casarella, *et al.* were able to demonstrate the bleeding site in 66 percent of patients studied for lower tract bleeding.[9] Of significance was the fact that twelve of thirteen patients with bleeding diverticula had lesions proximal to the splenic flexure. Baum, *et al.* studied fifteen patients with lower gastrointestinal bleeding from diverticula, and vasopressin infusion successfully controlled hemorrhage in all patients.[8] Four of these patients subsequently had surgery for bleeding that recurred following the cessation of vasopressin infusion. These and other studies conclusively demonstrate that the selective infusion of vasoconstricting agents can successfully control bleeding from the gastrointestinal tract in selected cases.

Selective mesenteric angiography may also be used to demonstrate bleeding from other causes such as inflammatory lesions, neoplasm, and arteriovenous malformations.[5, 10, 12, 15] Patients with aortic stenosis are more likely to develop obscure gastrointestinal bleeding than the general population. Williams reviewed ninety-five patients with undiagnosed causes of gastrointestinal bleeding, and noted that 26 percent of these patients with obscure bleeding sites had aortic stenosis.[16] This seemed of more than coincidental significance. Galloway, *et al.* reported three patients with aortic stenosis and gastrointestinal bleeding, and in all three

arteriovenous malformations of the right colon were demonstrated by selective angiography.[10] Segmental resection produced permanent hemostasis. In patients with aortic stenosis, these submucosal arteriovenous malformations seem to reflect a response of the bowel to the low perfusion pressure.[10] Other patients have since been reported, and this paper includes the report of a patient with a cecal arteriovenous malformation, with complete control of bleeding following segmental resection of the involved bowel. Other lesions may be demonstrated by selective angiography, including neoplasm. However, more conventional radiographic techniques are required to delineate these lesions. Indeed, if angiography fails to demonstrate a bleeding site in lower gastrointestinal bleeding, the examination should be followed by a routine barium study of the colon.

The complications of angiography are well recognized.[5] Additional complications have occurred during the infusion of vasoconstricting agents to control gastrointestinal bleeding. Some of these complications include catheter clotting and displacement, bradycardia, cardiac arrest, coronary constriction, respiratory arrest, peritonitis, and segmental intestinal ischemia.[5] These complications are uncommon.

The selection of vasoconstricting agent varies with the clinical investigator, but vasopressin appears the most universally accepted. Baum and Nusbaum reported the use of vasopressin in dose rates between 0.1 and 0.3 units per minute.[6] The initial dose rate selected is usually 0.2 units per ml. per minute, and this concentration of vasopressin is made by diluting 100 units of vasopressin in 500 ml. of 5 percent dextrose or normal saline. The dose rate of 0.2 units per minute is titrated up or down, depending upon the response of the mesenteric circulation following a short infusion of vasopressin. A satisfactory response is indicated by the control of bleeding, vasoconstriction with an adequate forward flow of contrast medium, and increased peripheral resistance with backflow of contrast medium into the aorta.[8] Rösch, *et al.* utilized epinephrine by arterial catheter to control gastrointestinal bleeding in selected cases, in dose rates of 8 to 16 micrograms per minute for superselective angiography and inferior mesenteric injections, and 20 to 30 micrograms per minute for celiac and superior mesenteric infusions.[7] These authors used epinephrine infusions for up to sixty minutes, and the infusion catheter was left *in situ* for periods up to three days. Rösch, *et al.* noted that they were able to control bleeding in only 15 percent of patients with upper gastrointestinal bleeding from peptic ulcer.[7] Even though the bleeding is not completely controlled, the use of vasoconstrictor infusion may achieve partial hemostasis and decrease transfusion requirements. Conn, *et al.* observed that vasopressin infusion decreased transfusion rates in comparable groups of patients, even in those in whom bleeding was not completely controlled.[5]

Previous reports from larger university centers have indicated the value of catheter mesenteric angiography in the diagnosis and treatment of patients with gastrointestinal hemorrhage. This report serves to illustrate that these principles are equally applicable at the busy community hospital. A number of representative cases have been presented to illustrate the type of problem and variety of patients which might be encountered, as well as the diagnostic and therapeutic implications in patients with gastrointestinal hemorrhage. Standard catheter techniques were utilized. Following catheter placement, angiography was performed with 76 percent methylglucamine diatrizoate. Infusion volumes of 30 to 40 ml. were used for celiac angiography, 40 to 80 ml. for superior mesenteric angiography, and 15 to 20 ml. for inferior mesenteric angiography, with flow rates of 5 to 10 ml. per second. Therapeutic infusions were performed with vasopressin, in the fashion described previously. In those patients in whom the hepatic artery arises from the superior mesenteric artery, the infusion catheter must be advanced beyond this vessel prior to vasopressin infusion. Infusions were performed with a Sigmamotor infusion pump. Catheter angiography is indicated in patients with acute upper gastrointestinal hemorrhage in whom the diagnosis is obscure, and in those patients in whom catheter infusion of a vasoconstrictor agent is contemplated because of the severity of bleeding. Angiography should precede barium procedures, so that areas of interest will not be obscured. Angiography and infusion therapy

should be considered routinely in patients with acute lower gastrointestinal hemorrhage, because of the high yield in the diagnosis of bleeding lesions and the almost uniform success rate of vasopressin infusion in the control of bleeding from lesions of the colon. Angiography allows the localization of bleeding sites, and standard barium studies should follow angiography to permit identification of the lesion by routine methods. Angiography is also of value in those patients with chronic gastrointestinal bleeding of obscure etiology in whom routine barium studies have been within normal limits. The theoretical value of mesenteric angiography and vasopressin infusion must be weighed against the theoretical complication rate, as well as the time which must be allowed for emergency angiography. For this reason, the angiographer must be prepared to provide safe, prompt, and efficient angiography to the patient with gastrointestinal bleeding.

Bibliography

1. Cooley R N: The diagnostic accuracy of upper gastrointestinal radiological studies. *Amer J Med Sci* 242:628, 1971.

2. Retzlaff J A, Hagedom A B, and Bartholomew L G: Abdominal exploration for gastrointestinal bleeding of obscure origin. *JAMA* 177:104, 1961.

3. Margulis A R, Heinbecker P, and Bernard H R: Operative mesenteric arteriography in the search for the site of bleeding in unexplained gastrointestinal hemorrhage. *Surg* 48:534-539, 1960.

4. Baum S, Nusbaum M, Blakemore W S, and Finkelstein A K: The operative radiographic demonstration of intra-abdominal bleeding from undetermined sites by percutaneous selective celiac and superior mesenteric arteriography. *Surg* 58:797-805, 1965.

5. Conn H O, Ramsby G R, and Storer E H: Selective intraarterial vasopressin in the treatment of upper gastrointestinal hemorrhage. *Gastroenterol* 63:634-645, 1972.

6. Baum S and Nusbaum M: Control of gastrointestinal hemorrhage by selective mesenteric arterial infusion of vasopressin. *Radiol* 98:497-505, 1971.

7. Rösch J, Dotter C T, and Antonovic R: Selective vasoconstrictor infusion in management of arteriocapillary gastrointestinal hemorrhage. *Amer J Roent Rad Ther Nucl Med* 116:279-288, 1972.

8. Baum S, Rösch J, Dotter C T, Ring E J, Athanasoulis C, Waltman A C, and Courey W R: Selective mesenteric arterial infusions in the management of massive diverticular hemorrhage. *N Engl J Med* 288:1269-1272, 1970.

9. Casarella W J, Kanter I E, and Seaman W B: Right-sided colonic diverticula as a cause of acute rectal hemorrhage. *N Engl J Med* 286:450-453, 1972.

10. Galloway S J, Casarella W J, and Shimkin P M: Vascular malformations of the right colon as a cause of bleeding in patients with aortic stenosis. *Radiol* 113:11-15, 1974.

11. Nusbaum M and Baum S: Radiographic demonstration of unknown sites of gastrointestinal bleeding. *Surg Forum* 14:374-375, 1963.

12. Baum S, Stein G N, Nusbaum M, and Chait A: Selective arteriography in gastrointestinal hemorrhage. *Rad Clin N Amer* 7:131-145, 1969.

13. Seldinger S I: Catheter replacement of the needle in percutaneous arteriography. *Acta Rad* 39:859-863, 1961.

14. Nusbaum M, Baum S, *et al:* Control of portal hypertension by selective mesenteric arterial drug infusion. *Arch Surg* 97:1005-1013, 1968.

15. Kanter I E, Schwartz A J and Fleming, RJ: Localization of bleeding point in chronic and acute gastrointestinal hemorrhage by means of selective vascular arteriography. *Amer J Roentgenol Rad Ther Nucl Med:*103:386-398, 1968.

16. Williams R C: Aortic stenosis and unexplained gastrointestinal bleeding. *Arch Int Med* 108:859-863, 1961.

17. Conn H O *et al:* Intraarterial vasopressin in the treatment of upper gastrointestinal hemorrhage: A prospective, controlled clinical trial. *Gastroenterol* 68:211-221, February 1975.

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The problem of obstructing nasal polyposis, its pathophysiology and clinical picture, is discussed. Methods of medical management are mentioned. A complete intranasal sphenoethmoidectomy operation which is a safe and effective procedure for the elimination of advanced intranasal polyposis is described. Coupled with medical management, it is the procedure of choice in extensive, obstructing rhinosinusitis with nasal polyposis.

Surgical Treatment of Intranasal Obstruction Due to Polyps

Mark Levey, M.D./Livingston*

There are many causes of nasal obstruction, ranging from simple edema of a coryza to infiltration by a neoplasm. This paper is concerned with obstruction caused by extensive benign nasal polyposis.

The physician treating this problem should be aware that it may be refractory to medical management, including the use of antihistamines, antibiotics, corticosteroids, and desensitizing procedures. The condition may become intolerable for the patient and a dilemma for the treating physician. Simple surgical procedures may provide only temporary relief. Extensive intranasal sinus surgery may offer the best solution to the problem by providing relief of the nasal obstruction, elimination of infection, and even reduction in the allergic reactions.

Etiology and Pathophysiology

Nasal polyps can be found in either sex but are distinctly uncommon in the young. When found in the latter group, the possibility of mucoviscidosis† must be considered. A history of long-standing allergic disorders is frequently obtained; there is good evidence that hereditary factors play a role. Disturbances in carbohydrate metabolism,[1] endocrinopathies, and virus infection,[2] have all been cited as etiological factors. Drug sensitivities, especially to acetyl salicylic acid and rauwolfia compounds have also been implicated. Emotional and environmental factors must also be considered.

Interestingly, many patients with polyps have failed to show any of the aforementioned predisposing factors, including atopy, and the etiology remains obscure. The nasal polyp is not a true neoplasm[3] but a focal exaggeration of an inflammatory reaction, resulting in polypoid degeneration. The development of polyps in a patient with chronic rhinosinusitis, is usually induced by allergy and infection, and is largely due to a vasomotor reaction in the chronically inflamed tissue. This reaction produces interference with interstitial fluid drainage; this, coupled with gravitational forces, edema, and congestion, produces diffuse polypoid hypertrophy or focal polyps. Venules of the polyps consistently show opened endothelial junctions, signifying vascular leakage. Undoubtedly in some patients hypersensitivity of the mucosal vascular bed causes alterations in capillary permeability resulting in separation of collagen fibrils with accumulation of exudate. Electron microscopic evaluation of the polyps show them to be devoid of sensory, vasomotor, and secretory motor nerves. Thus the denervated bed, which is prone to circulatory disorders, is a nidus of accumulating exudate which continues to enlarge into a discrete polyp. The microscopic picture is characterized by looseness of the stroma with separation of fibrils by edema and cellular exudate (Figure 1). Goblet cells are abundant with cystic changes in the glandular elements. Vessels are dilated, the basement membrane is usually hyalinized and squamous metaplasia may alter the appearance of the respiratory epithelium. There is an increase of

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†Toma GA, *et al*: Nasal polyps in cystic fibrosis. *J Laryn* 82: 265–268, 1968.

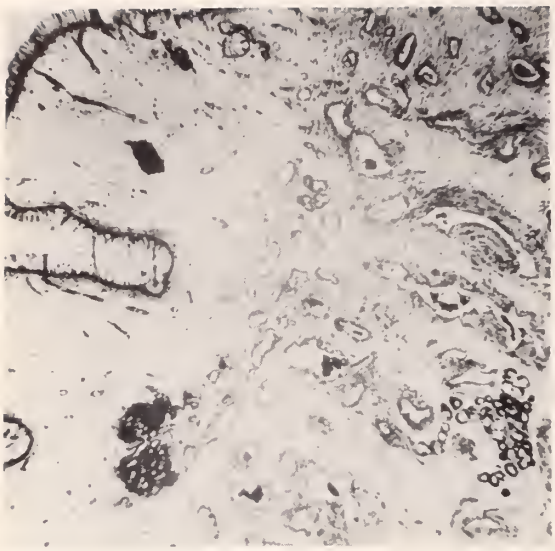

Figure 1 — Microscopic pathology.

Figure 2 — Typical appearance of nasal polyps.

fibroblast, lymphocytes and plasma cells in the allergic patient and eosinophils may be abundant.

The respective role played by allergy and infection in the formation of polyps (and the controversy over which came first) has caused improper forms of therapy in the past. Infection increases sensitivity of tissues to local allergens, and allergy renders the nasal mucosa more vulnerable to infection. Some patients are allergic to the products of infection, a state called "bacterial allergy."

Clinical Picture

Although etiologic factors are still controversial, the diagnosis is usually obvious. The nasal polyps are either unilateral or bilateral. The former should be more closely scrutinized for the possibility of true neoplasia. A polyp can be rounded or pear-shaped, opaque or translucent, or a soft, gelatinous mass; it may be solitary or multiple. Polyps are insensitive, mobile, grape-like clusters which do not bleed easily and which may fill the entire nasal cavity (Figure 2). The area of the upper lateral nasal wall, including the middle turbinate, middle meatus and ethmoid, are the common sites of polyp formation. Polyps rarely form on the septum. The middle meatus is a favorite site, presumably due to the delicate mucous membrane, exaggerated by sharp ridges which interfere with the blood lymph flow.

The dominent symptoms of nasal obstruction are rhinorrhea, tearing, anosmia, headache, and occasionally epistaxis. Signs and symptoms of superimposed infection with pain, swelling, and fever may also be present. On radiologic examination, there may be opacification of the sinuses, rarifying osteitis, widening of the ethmoid capsule, marked thickening of the sinus mucosa cyst and mucocele formation.

Therapy — Whether instituted by an allergist, otolaryngologist, or primary physician, the initial therapy should include combinations of antihistamines, appropriate antibiotics, sympathomimetic drugs, and topical and/or parenteral corticosteroids. Desensitization procedures may be instituted but they usually do not affect advanced stages of polyposis. This raises the interesting question of irreversibility. In the early stages, medical management may successfully reduce the polyps to insignificant size; however, the patient with persistent obstruction, advanced polyposis, and intranasal and sinus infection must be handled surgically. Sanders[4] believes that polyps in the formative stages, which are not handled effectively within the first three months, will become permanent.

Surgery — The initial procedure is usually simple polypectomy. One of the oldest surgical procedures known, it can relieve the complaints of obstruction. It may be coupled with sinus irrigation, intranasal antrostomy and/or submucous resection of the septum. This approach

can be quite rewarding and the patient may remain free of polyps. However, etiological factors may not be controllable and recurrences are common. The decision as to more extensive procedures will depend upon (1) the rate of recurrence of the polyps following simple procedures, (2) the ability to control the allergy and the infection, (3) the degree of obstruction, (4) the presence of systemic illnesses, (5) the patient's tolerance of his problems, and (6) complications of pre-existing infections.

If medical management and simple surgical procedures have failed to control the disease and alleviate the patient's symptoms, a complete bilateral intranasal sphenoethmoidectomy with bilateral intranasal antrostomies and, if necessary, subepithelial cautery of the inferior turbinates, as well as submucous resection of the nasal septum, is the procedure of choice. The entire procedure is accomplished without external incisions.

The patient is prepared pre-operatively by the use of dexamethasone nasal spray and antihistamines orally. In some cases oral corticosteroids are also used. Nasal cultures are taken and, if infection is present, appropriate antibiotic therapy is started about one week preoperatively. Surgery, which is never done during allergic seasons or when the patient is having exacerbations of his allergic state, can be performed under local or general anesthesia. It is now possible to use topical and infiltrative vasoconstrictors with safety with the newer types of general anesthesia; the patient is certainly more comfortable, the surgeon more at ease, and extensive intranasal surgery then can be carried out without pain.

The initial step is to remove large obstructing polyps so that the surgeon can gain access to deeper cavities. This can be accomplished with a snare. Following this, the middle turbinate is resected with a sharp scissor (Figure 3), leaving its attachment superiorly, plainly visible as a landmark. The sphenoid sinus (Figure 4) is then entered. The osteum can usually be probed, lying about 7 cm. at an angle of about 30 degrees from the floor of the nose. The osteum is widened with a sphenoid forcep and the lateral and superior walls of the sinus clearly delineated. These are

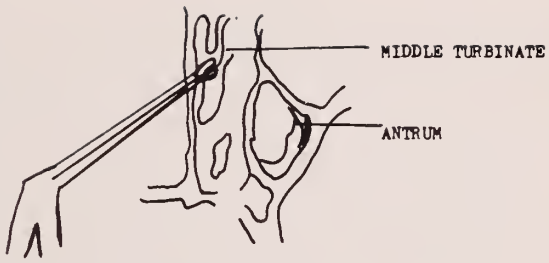

Figure 3 — Resection of the middle turbinate.

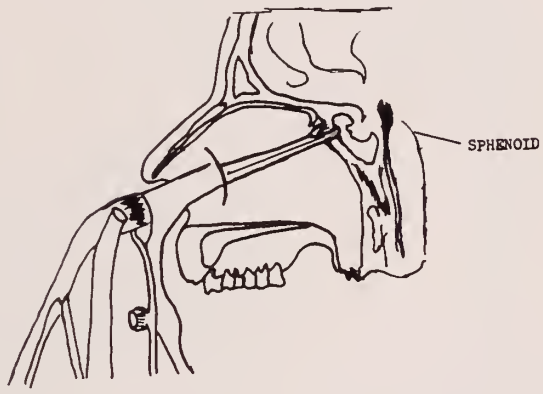

Figure 4 — Resection of the face of the sphenoid.

important landmarks for the surgeon. By opening the sinus widely, the surgeon is immediately aware of the superior limits of his dissection as well as the postero-lateral limits. The area of the orbit and optic nerve may now be easily judged, which prevents inadvertent damage to these structures. The dissection is then carried out from posterior to anterior, removing all ethmoid cells. The cells are opened, and the trabeculated walls removed and all diseased tissue exenterated (Figure 5). Anterior limits of the dissection are marked by identifying the ascending

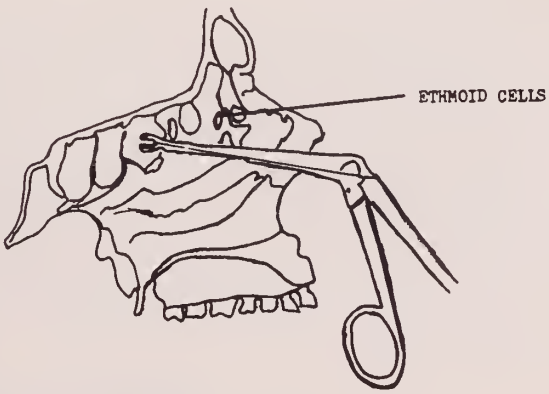

Figure 5 — Exenteration of the ethmoid cells.

process of the superior maxilla in the area of the nasal frontal duct. By removing these anterior cells, the nasal frontal duct may be probed. Anterior to the duct, the agar nasi cells can be removed. The cut edge of the middle turbinate must always be kept in view since medial to it, and somewhat below the ethmoid roof, lies the cribiform plate. Intranasal antrostomies are then performed and the diseased tissue removed from the antra. The antrostomy should be made in the inferior meatus and widened with forward and backward biting forceps. If a deviation of the nasal septum makes visualization difficult, submucous resection should be carried out. Hypertrophy of the inferior turbinates can be managed by subepithelial electrocautery. If hemostasis is not a problem, packing need not be used and antibiotic-steroid ointment can be applied to the operated area. Parenteral antibiotics are not used unless infection is a significant problem. Post-operative swelling is rare. The patient can be returned to regular diet and is permitted out of bed. A solution of equal parts saline and peroxide is used as a nasal irrigation. The patient is usually discharged from the hospital on the second or third post-operative day. Topical steroid nasal spray and oral antihistamines as well as oral steroids may be continued.

Post-operative healing is usually complete in six weeks, during which time the patient makes weekly visits to the doctor for nasal cleansing. Continued treatment of the allergic condition is essential after surgery.

Complications and Controversy

Complications involving the optic nerve, carotid canal, cribiform plate, lamina papyracea, and cavernous sinus will not occur if the surgeon stays within the planes of resection outlined above. The objections to this type of surgical procedure have revolved around three areas. Many surgeons oppose the intranasal approach and prefer the external approach. This procedure should be carried out by a surgeon who is skilled in intranasal surgery. Those more familiar with the external approach, should continue to use it.

The controversy regarding resection or preservation of the middle turbinate easily can be resolved when one considers that the turbinate is part of the ethmoid labyrinth and is often cellular and diseased; removal is not only necessary for visualization, but for the elimination of pathology as well. The superior edge is used as an important surgical landmark. One should realize that patients who have undergone multiple nasal polypectomies, may have had the turbinate inadvertently amputated so it may not be present when the extensive sphenoethmoidectomy is finally undertaken. The third point of controversy questions whether this type of surgery should be done at all, especially in the allergic patient. Many authors have pointed out the necessity of extensive surgery for extensive hyperplastic rhinosinusitis. Yankauer[5] defended this operation in 1921 and pleaded for a thorough and complete surgical procedure. Davison[6] and Harrison[7] as well as many others, more recently supported the argument for a radical approach to advanced disease. Polyps do recur after extensive surgery, but rarely produce obstruction. When considering the stress that nasal obstruction produces and the relief that patients obtain following this surgery, the reward appears obvious.

Bibliography

1. Smith MP: Dysfunction of carbohydrate metabolism as an element in the set of factors resulting in the polysaccarida nose and nasal polyps. *Laryngoscope* 81: 636–644, 1971.

2. Weille Francis L: Rhinological methods for controlling nasal polyposis and vasomotor rhinitis. *Ann Otol* 74: 840–851, 1965.

3. Ashe JE and Raum M: *Atlas of Otolaryngologic Pathology*. American Academy of Ophthalmology and Otolaryngology and American Registry of Pathology, Armed Forces Institute of Pathology. Ch. 16, p. 158.

4. Sander S: Management of total nasal blockage by polyps of allergic and infectious origin. *Ann Otol* 81: 566–577, 1972.

5. Yankauer S: The complete sphenoethmoid operation. Read before the American Laryngological, Rhinological and Otological Society, June 3, 1921, New York City.

6. Davison FW: Intranasal sinus surgery. *Laryngoscope* 79: 502–511, 1969.

7. Harrison DFN: Surgery in allergic sinusitis. *Otol Clin N Amer* 14: 79–95, 1971.

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The UGDP study of oral hypoglycemic drugs purported to show an excess of cardiovascular mortality in patients treated with tolbutamide and phenformin. The FDA issued warnings and planned labeling changes, which were opposed by a committee of diabetologists. The Biometric Society Committee did not disagree with the conclusions of the UGDP. This study shows that most responding cardiologists in New Jersey continue to use the oral antidiabetic agents in both cardiac and non-cardiac patients with diabetes. The majority of cardiovascular specialists do not require a signed informed consent by patients taking these medications.

Do Cardiologists Prescribe Oral Hypoglycemic Drugs?

Arthur Krosnick, M.D./Trenton*

During the period 1961 to 1970, a major national clinical study, the University Group Diabetes Program (UGDP), was sponsored by the National Institutes of Health (NIH). The project involved twelve university medical centers from San Juan to Seattle and approximately 1,000 patients. This large-scale controlled clinical trial was designed to determine whether treatment of diabetes with oral hypoglycemic drugs would protect diabetic patients from the development of vascular complications. In 1969, the UGDP investigators discontinued treatment with tolbutamide and, in 1971, the use of phenformin was stopped. The treatment protocols in 1961 had included variable dose insulin, standard dose insulin, tolbutamide, and placebo and, in 1962-1963, phenformin was added to the treatment. The reason for discontinuation of the oral hypoglycemic drug therapy was a statistical finding of "an excess of cardiovascular deaths in the tolbutamide group" and, later, a similar "excess of cardiovascular deaths in the phenformin group."[1,2,3]

As a result of these findings, the Food and Drug Administration (FDA) issued a warning to physicians and patients through the news media and other sources and instituted action to reflect such warnings on the labeling of all oral antidiabetic drugs.[4] These labeling changes then were opposed in public hearings and in court by representatives of the Committee on the Care of the Diabetic.[5] Because of the controversy in the scientific community about the study and the interpretation of the data, the director of NIH invited the Biometric Society to appoint a committee for the assessment of the statistical aspects of these controlled trials of hypoglycemic agents. The report of this committee concluded "that the UGDP trial has raised suspicions that cannot be dismissed on the basis of other evidence presently available."[6]

Since the major toxic effect purported to be caused by tolbutamide and phenformin was "excessive cardiovascular mortality," it seemed important to know whether cardiovascular specialists who treat patients with diabetes use the oral hypoglycemic agents. This report answers that question.

Method of Procedure

A questionnaire was mailed to all New Jersey members of the American College of Cardiology listed in the 1974 membership directory. The survey was designed to evaluate the following points:

1. Familiarity of cardiologists with the University Group Diabetes Program (UGDP) including the results of the study.

2. Familiarity with the U.S. Food and Drug Administration (FDA) position on the use of oral drugs (tolbutamide and phenformin) for the

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Table I — Familiarity with Reports

	Yes	No	Not Sure	No Answer
Aware of UGDP study	114 (94%)	5 (4%)	1 (1%)	1 (1%)
UGDP Study results and recommendations	106 (88%)	9 (7%)	4 (3%)	2 (2%)
FDA position	99 (82%)	11 (9%)	10 (8%)	1 (1%)
Biometric Society Report	69 (57%)	36 (30%)	13 (11%)	3 (2%)

treatment of diabetes and the proposed change in labeling and package insert.

3. Familiarity with the Biometric Society report which dealt with the results and interpretation of the UGDP study.

4. The present practice of cardiologists in New Jersey specifically relating to the use of the oral hypoglycemic drugs in patients with known cardiac disease and with non-cardiac patients.

5. The use of a signed informed consent form when oral hypoglycemic drugs are prescribed.

6. The reasons that those cardiologists who do not prescribe oral hypoglycemic drugs avoid them.

7. How cardiologists who do not prescribe oral hypoglycemic drugs deal with the treatment of diabetes.

Results

A total of 225 questionnaires were mailed and 139 (62 percent) were returned, including 121 (54 percent) which were completed. Eighteen were returned undelivered due to faulty address or were not completed due to the death of the cardiologist, protracted illness, or vacation, or for a variety of other reasons.

Of the respondents, 94 percent had heard of the UGDP study of tolbutamide (Orinase®) and phenformin (DBI® or Meltrol®) and 88 percent were familiar with both the results and the recommendations of the study. The position of the FDA on the treatment of diabetes with oral hypoglycemic drugs and its proposed plan to change the labeling and packaging insert of these medications was known to 82 percent of the cardiologists. Among those who replied, 57 percent professed knowledge of the Biometric Society report which dealt with the results of the UGDP study (Table I — see above).

Of the heart specialists who answered, 97 (80 percent) *do* prescribe the oral hypoglycemic drugs for *both* their cardiac patients with diabetes and the non-cardiac diabetics in their practice. Seventeen percent of the physicians do not prescribe the drugs for cardiacs, while twelve percent withhold the drugs from non-cardiac diabetics (Table II).

Table II — Prescribe Oral Hypoglycemic Drugs for Diabetic Patients

	Yes	No	No Answer
With Heart Disease	97 (80%)	21 (17%)	3 (3%)
Without Heart Disease	97 (80%)	14 (12%)	10 (8%)

Signed informed consent forms were definitely required by only seven percent of the physicians who use the oral hypoglycemics and 77 percent do not insist on this prerequisite to their prescription. Of the twenty cardiologists who do not prescribe the oral antidiabetic medications, five never prescribed them, while eleven formerly recommended them and stopped. Eight of the latter group discontinued their use because of the UGDP study and the FDA position on the treatment of diabetes. The treatment choices of the twenty non-prescribing cardiovascular experts reveal that one treats with diet alone; eleven prescribe diet alone or diet plus insulin, while three refer their patients to diabetologists or other primary physicians for care.

Comments

A number of cardiologists wrote comments on the inquiry sheet, some of which were "too salty" to print. Some representative statements were as follows:

"I feel that diet and weight loss are of paramount importance. I always accentuate this, even though I still use the oral hypoglycemic agents."

"Each patient needs individual judgment."

"I prescribe oral agents rarely, because I believe their usefulness is doubtful. If it cannot be avoided, I will use them in cardiac and non-cardiac patients alike as I do not believe the study had any relevance on patients with advanced heart disease I usually see."

"I believe the issue is not settled, however in view of the uncertainty I would prefer to avoid these agents."

"Prescribe oral hypoglycemics in selected older patients — 55 or 60 and above, with or without heart disease."

"As a consultant cardiologist, it is on very rare occasions that I have initiated antidiabetic therapy. However, if the patient has been on oral antidiabetic agents, I do not alter the medication."

"The results of UGDP study are not considered valid by me and other graduate cardiologists with long experience in metabolism and research. The criticisms of the study are well known. The natural history of diabetes alone, before oral hypoglycemics, was the same as now, i.e., increased strokes, heart attacks, and kidney disease."

"I explain my reasons for prescribing oral hypoglycemics and give them the option to take or not to take them."

"The original UGDP report was incomplete and medically less than perfect. Although there may be some truth in the final recommendation, it will remain for future studies to prove or disprove. These drugs have a place, albeit small, in the treatment of diabetes."

"I feel that the studies were very weighted and biased and that insufficient evidence was presented to obviate the continued use of these drugs."

"I believe the UGDP is entirely without merit."

"I don't believe the study. It tested only fixed doses and only of Orinase®. How do we know results apply to other sulfonylureas? The study proved diet better than insulin. What did they do with the patients who were on fixed dose and had hyperglycemia? In short, the study stank and is dangerous to the American people. The FDA is insane. My patients do fine on oral agents and are not dropping dead."

"I inform the patient; they seldom choose insulin."

"Try to avoid these drugs where possible, especially in younger people, but do not hesitate to use them in older symptomatic diabetics."

"My use of oral hypoglycemic agents has undergone critical re-appraisal since the UGDP report and my use of oral agents has significantly decreased. However, I do still prescribe them in those instances where I still feel it would be advisable (after careful explanation and patient concurrence). However, in spite of the Biometric Study report, I feel the UGDP study was badly flawed and a new better study should be initiated. There are also serious questions as to the accuracy of the raw data, and I believe the Committee for Care of the Diabetic is *correct* in opposing FDA labeling intentions."

"1. Please settle these types of uncertainties about drugs before they are approved for distribution.

"2. Settle scientific questions in a scientific manner and not debate them before organized press conferences.

"3. Allow the doctors to make the decisions — they have been trained for this.

"4. Avoid scare tactics and statements in public utterances."

Discussion

It appears that the majority of New Jersey cardiologists who responded are familiar with the UGDP and FDA reports, while a bit over half knew about the Biometric Society study. Despite this knowledge, most of them continue to use the oral hypoglycemic drugs in both cardiac and non-cardiac diabetic patients and do not require signed informed consent. Of the small number who do not prescribe the oral hypoglycemics, about half stopped recommending them because of the UGDP — FDA reports. This group of physicians uses diet alone, diet with insulin or refers the patients to another physician for diabetes management.

The individual comments of the cardiologists who use the drugs express belief in the primary importance of diet, skepticism toward the UGDP study, but respect for the FDA warning, coupled with a degree of resentment about its overbearing attitude and the premature release of debatable material to the public.

References

1. A study of the effects of hypoglycemic agents on vascular complications in patients with adult-onset diabetes: I. Design, methods and baseline results. U.G.D.P. Diabetes (suppl 2) 19: 747-783, 1970; II. Mortality results 19:787-830; 1970.

2. Effects of hypoglycemic agents on vascular complications in patients with adult-onset diabetes: IV. A preliminary report on phenformin results. U.G.D.P. *JAMA* 217:777-784, 1971.

3. A study of the effects of hypoglycemic agents on vascular complications in patients with adult-onset diabetes: III clinical implications of U.G.D.P. results. *JAMA* 218:1400-1410, 1971.

4. *HEW News*. 75:27, July 10, 1975.

5. Commentary: Oral hypoglycemics: much heat, little light. *J Med Soc NJ* 72:970-971, 1975.

6. Report of the committee for the assessment of biometric aspects of controlled trials of hypoglycemic agents. *JAMA* 231:583-608, February 10, 1975.

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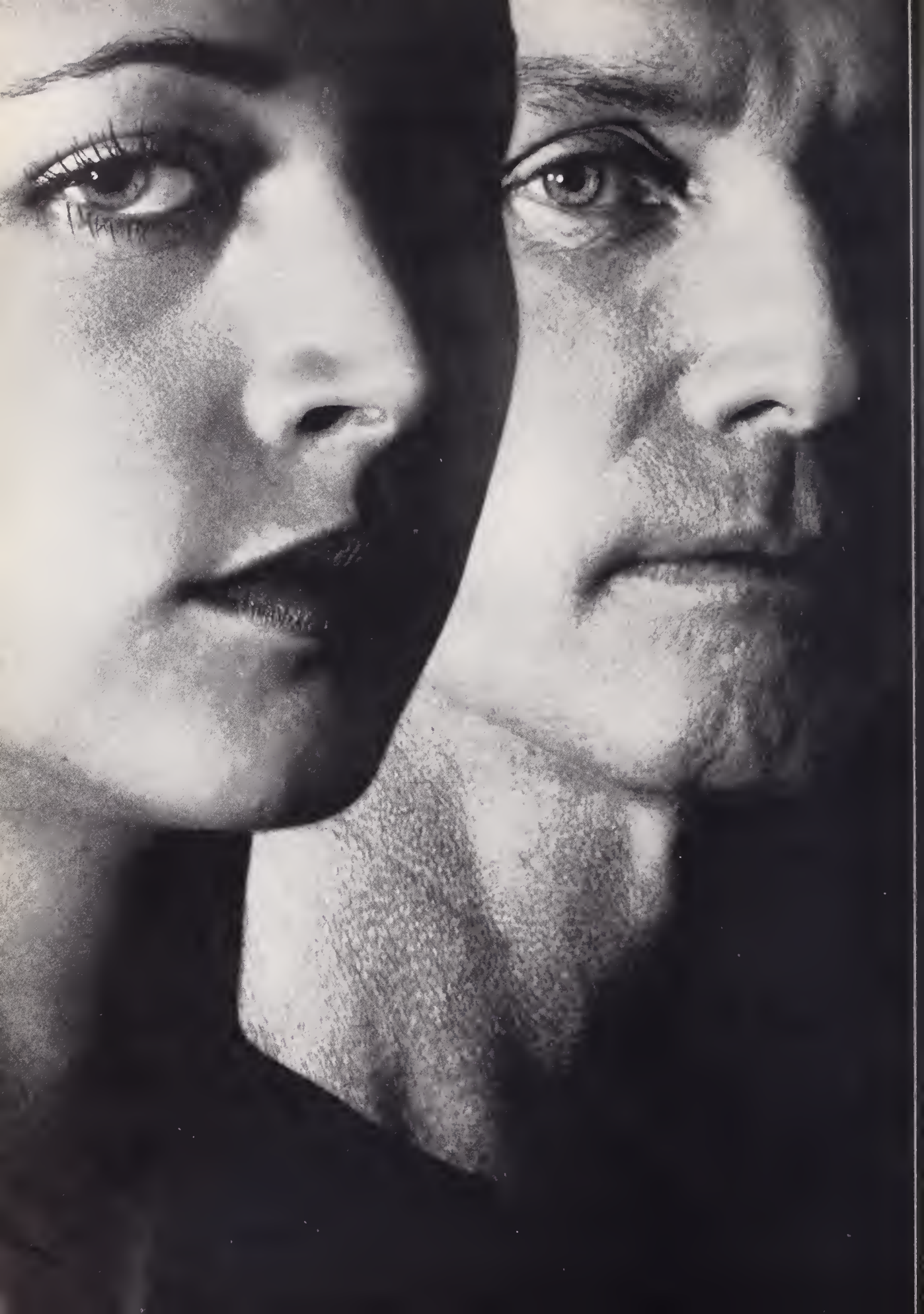

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he weight of ethical opinion:

Few would disagree that the effective-ess and safety of any therapeutic agent r device must be determined through linical research.

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The Pharmaceutical Manufacturers ssociation represents firms that are sig-ificantly engaged in the discovery and evelopment of new medicines, medical evices and diagnostic products. Clinical esearch is essential to their efforts. Con-equently, PMA formulated positions hich it submitted on July 11, 1975, to he Subcommittee on Health of the Sen-te Labor and Public Welfare Committee, s its official policy recommendations. Here are the essentials of PMA's current hinking in this vital area.

1. PMA supports the mandate and nission of the National Commission for he Protection of Human Subjects of iomedical and Behavioral Research and ffers to establish a special committee omposed of experts of appropriate isciplines familiar with the industry's esearch methodology to volunteer its ervice to the Commission.

2. PMA supports the formation of an ndependent, expert, broadly based and epresentative panel to assess the current tate of drug innovation and the impact pon it of existing laws, regulations and rocedures.

3. When FDA proposes regulations, t should prepare and publish in the *Fed-ral Register* a detailed statement assess-ng the impact of those regulations on rug and device innovation.

4. PMA proposes that an appropri-tely qualified medical organization be ncouraged to undertake a comprehen-ive study of the optimum roles and esponsibilities of the sponsor and physi-ian when company-sponsored clinical esearch is performed by independent linical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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A ten-hospital affiliated network of pacemaker diagnosis clinics to provide an organized system of pacemaker patient follow-up and care has been established in New Jersey. This report describes the status of the operation and effectiveness of these clinics, which has been aided by telephone transmission of the electrocardiogram and pacemaker rate. Future improvements in the surveillance process will include extension of the network of clinics, greater accuracy of diagnostic methods, and automatic data processing.

Progress Report of the Affiliated Pacemaker Centers in New Jersey*

Victor Parsonnet, M.D., George H. Myers, Ph.D., and Marjorie Manhardt, Newark

Without adequate surveillance, patients with pacemakers run the risk of sudden failure of the unit and a return to the clinical state that preceded the pacemaker implant. They are also deprived of the benefits of advice on the conduct of their affairs, and the benefits of a conventional doctor-patient relationship that is inherent in the practice of medicine. There have been many reports on the value of periodic study of implanted pacemakers with non-invasive techniques; throughout the world pacemaker diagnostic centers have sprung up in great numbers. In the United States probably more than 60 percent of the hospitals where more than 25 pacemakers are implanted each year provide some type of follow-up system.[1]

There are basically two popular methods of pacemaker surveillance practiced in the United States today.[2] One of these is telephone transmission (of as much information as possible) from the patient to a central station, such as a hospital clinic or doctor's office. Information that can be transmitted by telephone is limited. Although some techniques are available for transmission of rather complete information, most will transmit only the pulse generator rate, an ECG rhythm strip, or both. Telephone transmission is particularly suitable for patients who are too sick or otherwise immobile to travel to a major center, and to areas in the country where travel to a diagnostic center is impractical.

The other technique for monitoring patients is known as waveform analysis, in which the electrical output of the pacemaker is amplified and all of its parameters are measured. This is based upon the observation that as batteries decay there will be a variety of changes detected in the details of the pacemaker electrical output pulse. A clinic also provides an opportunity for examination of the patient, and restores the normal doctor-patient relationship.

In New Jersey the trend has been toward a combination of waveform analysis and telephone transmission of rate and the electrocardiogram toward the end of life of the pacemaker. This provides close surveillance of the patient toward the end of the expected life of the implanted unit. In 1969, a pacemaker surveillance network was established in New Jersey. There are ten regional affiliated centers that function autonomously but use essentially identical techniques.** The major communication between these groups is through a computer that is located at the Newark Beth Israel Medical Center. The computer program is used in common by each of the centers, in the expectations that this regionalization and coordination of services will improve patient care and reduce costs. Centralized telephone monitoring is also provided.

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*From the Department of Surgery and the Pacemaker Center, Newark Beth Israel Medical Center, Newark, New Jersey. Supported in part by a grant of the New Jersey Regional Medical Program.

**In addition to Beth Israel, the institutions involved and their pacemaker clinic medical directors are Milton Wiener, M.D., Hackensack Hospital; Barry Ultan, M.D., Helene Fuld Hospital, Trenton; John J. Gregory, M.D., Overlook Hospital, Summit; Robert W. Datesman, M.D., Shore Memorial Hospital, Somers Point; John Penny, M.D., Valley Hospital, Ridgewood; George H. Sabel, M.D., Pascack Valley Hospital, Westwood; Warren T. Widmann, M.D., Morristown Memorial Hospital, Lucian Fletcher, Jr., M.D., Newton Memorial Hospital, and Klaus Schulz, M.D., Jersey Shore Medical Center, Neptune.

The affiliated groups met for the first time in May, 1974 (and for the second time in June, 1975) to discuss the progress of their individual programs over the previous three years, and to make recommendations for changes and future developments. The following report is a summary of the 1974 meeting.

Method of Clinic Operations

Each clinic uses essentially the same method of pacemaker surveillance. The first clinic, and therefore perhaps the largest and most elaborate, is the system at the Newark Beth Israel Medical Center (NBIMC).

At Beth Israel, a patient reports to the clinic four months after pacemaker implantation, and every four months during the first year. Thereafter, visits occur at three month intervals until 18 months, at which time patients are also routinely monitored by telephone. Clinic visits are continued at three month intervals until the pacemaker has been implanted for three years, after which visits are at two month intervals. If anything unusual is noted on the telephone monitor, patients are asked to come to the next clinic.[2]

Clinic sessions are held once a week at the outpatient department of the hospital. There are five examining rooms which are all wired to a central test area. With the patient supine, an electrocardiographic cable connects the limbs to an amplifier and oscilloscope, from which the contour of the electrical impulse can be photographed and measured. Standard lead 1 is used for the ECG rhythm strip and for measurement of the artifact amplitude.

Interval and pulse duration are measured by means of an electronic interval counter. Waveform characteristics are determined by observing the amplified electrical impulse on a wide-band oscilloscope. Special circuits are incorporated to insure that the counter and oscilloscope are not disturbed by the waveform of the electrocardiogram. A standard protocol has been established for electrode placement and patient position.

The amplitude of the electrical impulse is measured at its peak amplitude, and the pulse duration is measured from the leading edge to the trailing edge. The scale factor is set so that the amplitude on the oscilloscope is between five and ten cm. The repetition rate (impulse interval) is recorded on a digital counter, and the pulse contour is given a code number.† The findings thus obtained are inserted into a computer that immediately types out a report and compares the present data with data from all previous visits. With this technique, the magnitude and rate of change in all parameters can be evaluated rapidly. After the tests are completed and the computer report generated, the patient is interviewed by one of the physicians, who decides about any change in the return visit schedule, hospital admission, and so on. The computer report (Figure 1) photograph of the wave artifact, ECG, rhythm strip, doctor's comments, and a computer-generated letter explaining the findings are compiled and sent to the patient's physician.

PACEMAKER EVALUATION REPORT

NAME: [redacted] MALE BIRTH DATE: 10/20/15
NUMBER: NBI 12457-02 PRESENT AGE: 60
PM: 004 COR 133A VAT LEAD: 5 IMPLANTS: AT AGE ON
DIAGNOSIS: FIRST 59 11/15/74
REFERRED BY: DR(S). [redacted] THIS, # 2 59 1/25/75

EVALUATION # 13

VISIT	MTHS IN	HEART RATE (BPM)	PULSE INTERVAL (MSEC)	PULSE WIDTH (MSEC)	AMP (MV) A	COMPETITION	I-I RESP.	WAVF FORM TYPE
FIRST DATED 4/24/75	3	67	900	1.0	70	NO	YES	3

COMPARISON WITH FIRST VISIT

		<- ABSOLUTE CHANGE ->			<- % CHANGE ->			
# 2	4	0	+001	0	- 01	NO	YES	3
# 3	5	-01	+002	0	- 03	NO	YES	3
# 4	5	-01	+003	0	- 04	NO	YES	3
# 5	7	-01	+004	0	- 06	YES	YES	2
# 6	8	-01	+005	0	- 07	YES	YES	2
# 7	9	-01	+006	0	- 09	YES	YES	2
# 8	10	-01	+007	0	- 10	YES	YES	2
# 9	11	-01	+008	+0.5	- 11	NO	YES	1
# 10	12	-01	+009	+0.5	- 13	NO	YES	1
# 11	13	-01	+010	+0.5	- 14	NO	YES	1
# 12	14	-01	+011	+0.5	- 16	NO	YES	1
THIS DATED 4/25/76	15	-01	+012	+0.5	- 17	NO	YES	4
		66	912	1.5	58			

Figure 1 — Typical computer printout obtained after each clinic visit.

The other clinics function in almost identical fashion with minor exceptions that are dictated by the available personnel and the size of the patient load. The NBIMC clinic meets once a week whereas some of the affiliated clinics meet only once or twice a month. Half of the centers prefer to do batch processing of the computer information.

†Although all tests can be performed on standard devices, the entire package of oscilloscope, digital counter, ECG monitor, and electrocardiograph has been incorporated into a single test unit by the Hewlett Packard Corporation.

At the Newark Beth Israel Medical Center, the computer is a PDP 8/I. The input and output are channeled through separate teletypes so that one report is being inserted while the previous one is being typed. At the affiliated centers, the input and typeout are performed in sequence on the same teletype, which adds a few moments to the procedure. Otherwise, each center has identical test equipment.

Telephone Monitoring

Utilization of phone monitoring differs among the centers. One center finds phone monitoring very valuable when the rate is unstable at the beginning of pacemaker life. For more stable rates, they feel frequent clinic visits toward the end of life are adequate.

Because evidence seems to show that increased accuracy of diagnosis can be achieved with telephone monitoring, most of the other clinics have utilized this technique starting somewhere between 18 and 24 months of pacemaker life. One of the affiliates does its own monitoring, but the rest utilize the monitoring service provided by the NBIMC. Reports are returned to the local center by mail within two days, or by phone if significant or suggestive changes in rate have been detected.

External Overdrive

The specific usefulness of routine measurement of the length and sensitivity of the refractory period of a pulse generator in a pacemaker clinic has never been fully evaluated, although this technique is now used routinely at the NBIMC. If a small electrical impulse is applied over the pulse generator through two electrodes placed near a sensing pulse generator, the pulse generator will react appropriately to the signal (Figure 2). It will "misinterpret" the new incoming signal as an R wave. Thus, the output of an inhibitory unit will be suppressed, while a triggered unit will be discharged synchronously with the applied pulse, depending upon the timing, rate, and intensity of the external signal (Figure 3). The technique has been referred to as "external overdrive" or "chest wall stimulation," but neither term is really appropriate because signaling at rates *slower* than the pulse generator is also useful ("under driving"), and the term "chest wall stimulation" is confusing because this term has been used to describe one type of malfunction of an implanted unit. External overdrive, therefore, appears to be a preferable term.

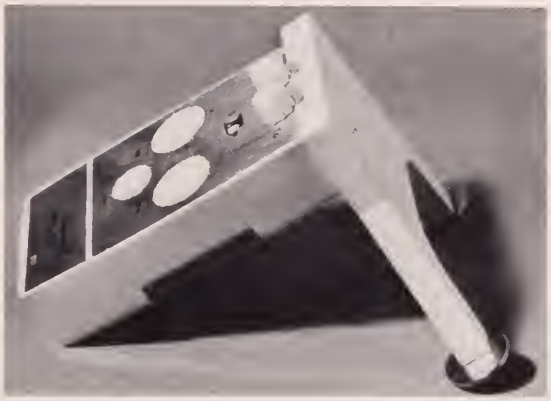


Figure 2 — Photography of external pacemaker with special electrode "feet" used for external overdrives of implanted pacer.

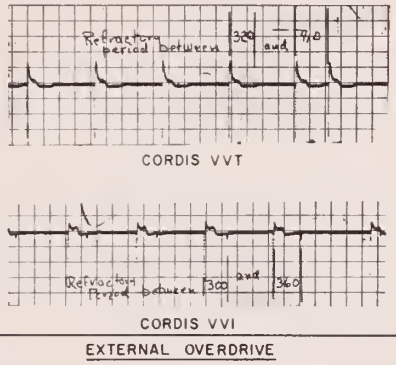
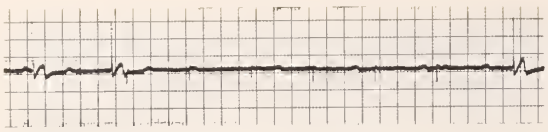
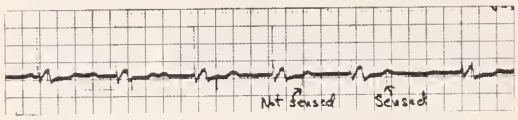


Figure 3 — Effects of overdriving a triggered pacemaker, VVT (top), and inhibitory pacemaker, VVI (bottom). (For definition of VVI, VVT, etc, see ICHD report.)[4]

The method is useful in testing *sensing* units in the following ways: at rates *faster* than the implanted pulse generator, the ability of both inhibitory and triggered units to sense can be determined. Inhibitory units will be suppressed and the underlying basic cardiac rhythm will be disclosed. One can thereby evaluate the unpaced electrocardiogram and measure the time elapsed before the first spontaneous cardiac contraction occurs. Triggered units will be made to go faster at a rate synchronous with the chest wall stimulus (up to limits designed by the manufacturer).



EX.O. FASTER THAN PACER ↑. VVI PACER



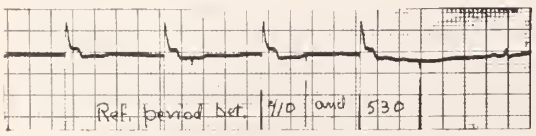
EX.O. SLOWER THAN PACER ↑

REFRACTORY PERIOD BETWEEN .360 & .400 SEC.

Figure 4 — Fast overdrive inhibits the implant VVI unit, disclosing complete A-V block and asystole for 4½ seconds. Slow overdrive permits measurement of pacemaker refractory period.

At rates *slower* than the implanted pulse generator the length of the refractory period can be approximated (Figure 4).

In applying the stimulus it is important either to observe the electrocardiographic monitor or palpate a peripheral pulse. The stimulus should first be set slower than the implanted unit to measure the refractory period, and then additional observations may be made at a faster setting. When testing inhibitory units great care must be made to check the pulse or the monitor continuously in case ventricular arrest occurs. An example of detection of early pulse generator failure as evidenced by an abnormal refractory period is seen in Figure 5.



CORDIS STANICOR-143A (VVI)-R.P. 220-260 msec.

EX.O. → R.P. 410-530 msec

Figure 5 — Abnormal pacemaker refractory period of failing pacemaker revealed by external overdrive.

Financial Organization

Except for the NBIMC, all of the clinics are financed through indirect reimbursement from Medicare, Blue Cross and other payments to the hospital. At the NBIMC, a special non-profit corporation has been established. The corporation has a separate board of trustees comprising members of the hospital board, the three physicians involved with the pacemaker clinic, an engineer, and one of the pacemaker users. Payments are made directly by the third parties to the corporation. This provides the center with a certain autonomy of operation and a fiscal organization that permits great flexibility of function.

Results

The description of the results of surveillance can be typified best by the experience of the NBIMC over the 1971-1973 period.

Reasons for pulse generator replacements are listed in Table I. There are many reasons to replace a pulse generator *other than* battery exhaustion. Twenty-three percent of replacements were either elective, based upon the choice of the physician or the patient, or related to non-device problems, such as extrusion of the pacemaker. (These should be excluded when one is evaluating effectiveness of the wave form analysis technique.) It should be noted that wave form analysis will detect defects other than battery exhaustion; these include wire fracture, high threshold and electrode malposition. Table II indicates the relative frequency of battery exhaustion over the past five years. There has been little change during that time, with battery exhaustion accounting for approximately 79 percent of all replacements, except for 1973 when a

Table I

Pulse Generator Replacements — 1971-1973

Reason	Number*	Percent
Battery Failure	214 (6)	54
Patient or M.D. Choice	78	20
Component Failure	23 (9)	6
Wire Fracture	21 (16)	5
High Threshold	12 (9)	3
Extrusion and Infection	13	3
Rate Out of Specs	7	2
Misdiagnosis	7	2
False Positive	6	2
Electrode Malposition	5 (1)	1
Inadequate R Wave	2	
Broken Pin	2 (1)	
Broken Plug	1	2
Broken Insulation	1	
Runaway Rate	1 (1)	
Missing Plug	1	
	394 (43)	

* (Numbers in parentheses indicate those cases replaced as an emergency, and not detected by the clinic method.)

large number of component failures were encountered in a new pacer that was undergoing clinical validation.

Table II

Pulse Generator Replacement For Battery Depletion

	1969	1970	1971	1972	1973
Battery	82 (84%)	97 (86%)	70 (76%)	85 (79%)	59 (67%)
Components, leads, connectors	16	16	22	22	29
Total	98	113	92	107	88

Table III

Battery Voltage According to First Abnormal Finding (Cordis 143A, C, E, 129E)

Finding	Number	Battery Status Failing	Normal
1. Interval only	54	46	8(15%)
2. Interval & Amplitude	5	5	0
3. Interval & Duration	1	1	0
4. Interval, Duration & Amplitude	2	2	0
5. Sensing Failure	3	0	3
	65	54	11 (17%) (False Positive)

Table IV

Battery Voltage According to Clear Clinic Findings (143A, C, E, 129E)

Findings	Number	Battery Status Failing	Normal
1. Interval & Amplitude	15	14	1
2. Interval & Duration	1	1	0
3. Interval, Duration & Amplitude	19	19	0
4. Interval, Duration, Amplitude & Sensing	1	0	1
	36	34	2 (5.5%) (False Positive)

As indicated, the most important parameters for detecting battery exhaustion were impulse interval, amplitude, duration, and combinations of these. With some pacemakers, failure of sensing was also indicative of battery exhaustion. In an effort to clarify the importance of the various parameters, battery failure was examined retrospectively with regard to the first abnormal finding detected in the clinic (Table III.) If change of rate were selected as the *only* index of failure, eight of 54 pacemakers (15 percent) would have been removed prematurely. On the other hand when two changes had occurred simultaneously (Table IV) only two of 36 (5.5 percent) were removed prematurely and none was removed late. With only one change the output was usually over 6 volts, or nearly normal; but with two or three changes the output voltage fell to 5 volts (more than one cell) in 80 percent of cases. These pacemakers also continued to function for two and a half to ten months in a body temperature saline bath, even though the battery voltage had dropped to 3.5 or 4.9 volts before the start of test. The first total failure of a pacemaker was one month later in the saline test bath.††[3]

Table V

Findings	Recommended Action Pacemaker Yes	Dependent No
Change in interval only	Replace within 4-6 weeks	Wait for 2nd finding
Change in interval and duration or amplitude	Replace immediately	Replace within 2-4 weeks
Sudden failure of sensing circuit	Probably will not be detected	Replace at leisure if isolated finding. Replace soon if associated with interval or amplitude change.
Loss of capture	Replace immediately	Replace immediately

Interval – clear change in *rate* of change
Duration – ± 0.2 msec.
Amplitude – drop of 15% below lowest previous reading

As a general rule, based upon analysis of explantation life of these units, it appears safe to wait for a second change to occur. On the basis of tests of this kind, criteria for pacemaker replacement have been revised (Table V). The criteria depend heavily on whether or not the patient is pacemaker-dependent. If the patient can be expected to have cardiac arrest if the pacemaker fails, the pulse generator should obviously be replaced when the first sign of battery exhaustion is noted.

††These data are only important for the specific pulse generator under study. For example, although the same criteria for replacement were used with the Medtronic 5841 the first failure occurred 15 days after removal.

Errors and Problems in 1973

There were two types of errors made: those where no signs of pulse generator failure were detected and there was a sudden loss of pacing; and, those where signs of failure were "over diagnosed" and the pulse generators replaced prematurely. The first type of error is the more dangerous, but fortunately these remain uncommon (about 5 percent of cases) (Table VI). The second type of error, false positive, occurred 13 times in 1973.

Table VI

False Negatives — No Signs of Pulse Generator Failure Detected

	1969	1970	1971	1972	1973
Number of Cases	74	82	70	85	59
Errors	7	5	1	3	3
Percent correct	91%	94%	99%	96%	95%

Pulse generators were removed prematurely because of misinterpretation of sensing problems (4 cases), mathematical error in calculation of the rate (1 case), and incorrect evaluation of rate changes (8 cases). Errors of this sort can be attributed to a growing case load and the attendant difficulties of mass diagnosis. (An obvious solution would be to develop automatic data processing.)

Other problems encountered during 1973 were mostly related to the telephone transmission system. Although the precise number of false positives and false negatives have not been determined, problems arise frequently enough to require very close supervision of each transmitted electrocardiogram. Examples of some of these are shown in Figures 6-8. These include poor quality of the tracing, wandering baselines, spike-like artifacts that have no relationship to pacemaker output, pacemaker spike "echoes," absence of pacemaker spikes, and difficulty in interpreting unusual pacemakers, such as a ventricular tracking unit (Starr-Edwards).

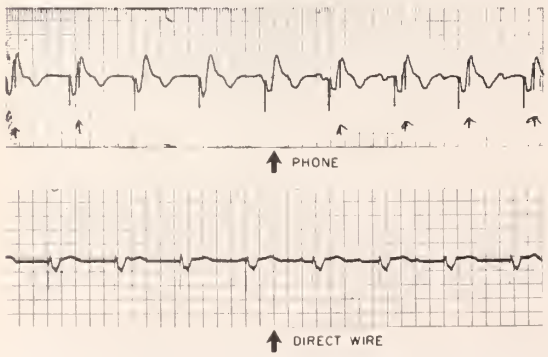


Figure 6 — Phone transmission artifact. Simultaneous recordings reveal extra "spikes" on phone transmission.

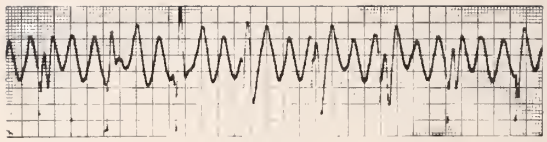


Figure 7 — Chaotic rhythm transmitted over telephone due to patient tremor. These had no abnormality of pacer function.

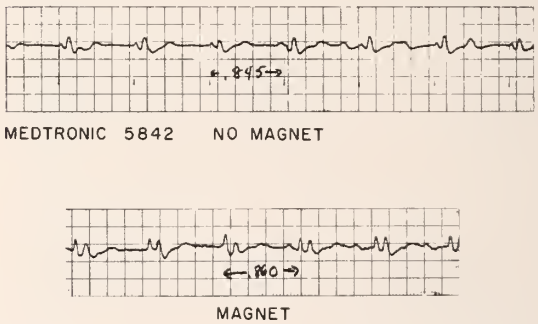


Figure 8 — Disappearance of pacer spikes of Medtronic pacer with telephone transmission application of magnet.

One affiliate experienced inconsistent readings over the phone because the magnet did not activate the reed switch. This problem was clarified by bringing the patient in and rechecking that pacemaker in the clinic.

Analysis of pacemakers with bipolar electrodes is difficult, particularly with respect to amplitude of the impulse. There is no satisfactory substitute, however, because transmission over the telephone is also difficult. Utilization of the radio-frequency emission may be helpful in cases of this sort.

The results of the operation of the affiliated clinics during 1973 are summarized in Table VII.

Summary

Ten hospitals in New Jersey have joined together

Table VII

Pulse Generator Replacements — 1971 to 1973
(Based on Findings Detected by Waveform Analysis)

Reason	Beth Israel No./Percent	Affiliates No./Percent	Totals No./Percent
Battery Failure	214 (74%)	168 (79%)	382 (76%)
Component Failure	23 (8%)	22 (10%)	45 (9%)
Wire Fracture	21 (7%)	14 (7%)	35 (7%)
Other	32 (11%)	8 (4%)	40 (8%)
	290 (100%)	212 (100%)	502 (100%)

in an affiliated network of pacemaker diagnosis clinics to provide an organized system of pacemaker patient follow-up and care. A meeting of these clinics, hopefully the first of a series of annual meetings, was held in May 1974 for the purpose of presenting results to one another, and analyzing mutual problems. This report describes the status of the operation and effectiveness of these clinics.

The present waveform analysis and *phone* transmission will predict impending battery failure in approximately 90 percent of the patients. Telephone transmission of the electrocardiogram and pacemaker rate, despite some difficulties, has added considerably to the effectiveness of the clinic procedure. The use of external overdrive of the implanted pulse generator with an external pacemaker is a new and useful technique for the diagnosis of pacemaker failure.

Future improvements in the survillance process will include extension of the network of clinics, greater accuracy of diagnostic methods, and automatic data processing.

References

1. Thalen H J, Editor: *Cardiac Pacing Proceedings of the 24th Annual International Symposium*, Netherlands, Van Gorcum and Co., 1973.

2. Parsonnet V, Myers G H, Gilbert L, Zucker I R, Shilling E: Follow-up of implanted pacemakers. *Amer Ht J* 87:642-653, 1974.

3. Rockland R, Parsonnet V, and Myers G H: Failure modes of American pacemakers — *in vitro* analysis. *Amer Ht J* 83:481, 1972.

4. Parsonnet V, Furman S, and Smyth N P D: Implantable cardiac pacemakers status report and resource guideline. ICHD Report, *Circ* 50:A-21, 1974.

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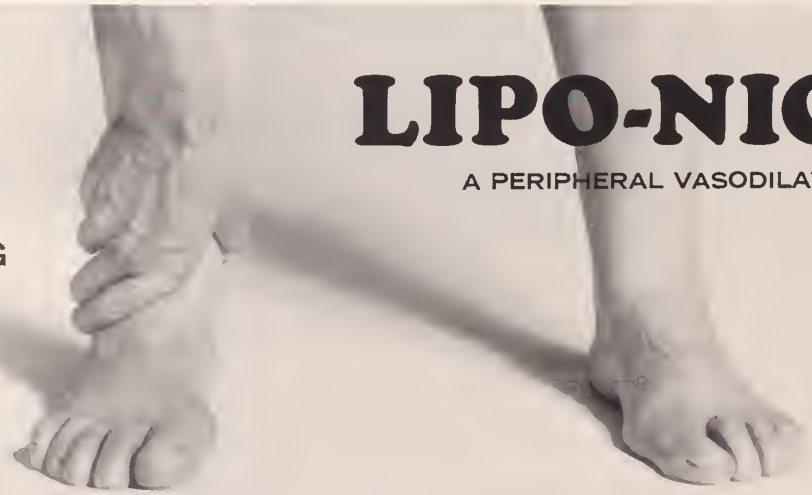

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Although the means for the cure of tuberculosis are available, the continued occurrence of tuberculosis in Newark suggests that the problem is not primarily medical but in fact social and economic. When hospitalization is required, it should be carried out in a general community medical facility responsible for its own community's medical problems, just as with any other disease. Hospitalization in a center dedicated to the treatment of tuberculosis is neither necessary nor desirable.

Comprehensive Care of Patients with Pulmonary Disease in Newark*

Waymon C. Lattimore, M.D. and Lee B. Reichman, M.D./Newark

The Newark Setting

Newark has been publicized as a deteriorating and deteriorated city with many problems.[1] According to the U.S. Bureau of Census report of 1970, Newark's population was 382,417. Of these, 56 percent (214,035) were non-white and 44 percent (168,382) were white. The median family income in 1960 was $7,735. The black Newark resident had a median income of $6,742. The median family income in the United States was $9,867. Of all persons in Newark, 22.3 percent had an income below the poverty level compared to 13.7 percent of all persons in the United States.

Unemployment in Newark is more than double the national average. It is aggravated by a continuous loss of manufacturing and other industries that employ unskilled labor. Of Newark's housing units, 80 percent are substandard.[2] Newark's severe poverty affects many aspects of life in the city and relates to most social problems including poor health. In a city in which one-fourth of its population is too poor to pay for health services, there has been a steady exodus of practicing physicians.[3] (Table 1)

Table 1

Physicians Population Rating

	Year	*Physicians per 1000*	*Number People Served by one physician*
Newark	1955	2.1	480
Newark	1972	1.09	920
National	1972	1.56	640

The number of physicians decreased from 2.1 per 1000 population in 1955 to 1.56 per 1000 population in 1972. This is far below the national average of one physician for every 640 persons. Consequently, the hospitals are left to serve as primary providers of health care in many instances. Most indigent patients without private or third party funds for health care are treated at the Martland Hospital unit of the College of Medicine and Dentistry of New Jersey — New Jersey Medical School. More than 50 percent of such patients are unable to pay.

Martland Hospital has about 18,000 yearly admissions. In the period between July, 1973 and June, 1974, 1,651 patients were admitted with major pulmonary disease. This is 9.3 percent of the yearly admission. Table 2 breaks down the diagnoses.

Table 2

Discharge Diagnosis of Pulmonary Disease Patients — Martland Hospital July, 1973-June, 1974

Diagnosis	*Percentage*
Pneumonia	39
Asthma	11.1
Tuberculosis	9.3
Bronchitis	5.2
Malignant Neoplasms	4.4
COPD, Emphysema and Bronchitis	4.3
Other diseases combined	26.4

The enumeration of the disease processes seen in a hospital such as Martland is merely a begin-

*Presented in part at the New Jersey Thoracic Society's Third Annual Meeting in its "Tuberculosis Today" session June 4, 1975. Dr. Lattimore is Assistant Professor of Medicine, and Dr. Reichman is Associate Professor of Medicine, New Jersey Medical School, CMDNJ, Newark.

ning in the description of the severity of the health problems of Newark's residents. Patients often fail to seek help until they are extremely ill even to the point of being moribund. Such delay is a composite of many factors:

> A tradition of episodic care in which the patient hesitates to confront a system which has frequently been unsympathetic and demeaning . . . The concern with the economic needs of day-to-day living to the exclusion of prevention of disease and even the managing of moderate illnesses . . . The lack of sufficient education or knowledge, and lack of insight into the nature of the medical problem on the part of the patient to appreciate that serious illness may place him in jeopardy of sudden death . . . The lack of meaning and purpose in the daily experiences of life.

> Access to health service is difficult as patients are often shuffled from one clinic to another with little regard for the emotional impact on patients and for their personal needs . . . Services are often fragmented and scattered in many locations throughout the hospital . . . Some patients have multiple diseases and must attend several clinics, each requiring a substantial waiting time.

The problem of poor health care is reflected in the tuberculosis cases and deaths for New Jersey, Newark and other selected cities.[4] (Table 3) The death rate from tuberculosis in Newark is almost four times greater than the death rate in New Jersey as a whole. The active case rate of tuberculosis is more than four times the rate of that for all New Jersey.

Other data show that less than 60 percent of patients with active tuberculosis started on anti-tuberculosis therapy in a given year actually completed the recommended 18 to 24 months of drug therapy.[5] From January to June, 1973, only 61.3 percent of contacts and patients with tuberculosis infection without disease (reactive 5 TU PPD of greater than 10 mm with negative sputum culture and negative chest x-ray) who were started on isoniazid completed the recommended course of treatment.[5]

A Comprehensive Care Program

Philosophy

The New Jersey Medical School, its Department of Medicine, Martland Hospital, and the Pulmonary Disease Division, has a major commitment to patient care in Newark. The faculty and staff believe the delivery of high quality health services, with consumer convenience and access to a comprehensive program, to be of paramount importance. The categorical treatment of pulmonary diseases as such, especially tuberculosis, is outmoded, counterproductive, and wasteful.[6] Patients with pulmonary disease, including tuberculosis, should be treated by internists in a comprehensive primary care program that handles all the patients' medical problems.[7] This includes the treatment of hypertension, diabetes, arthritis, and so on, at the same clinic visit.

Martland Hospital has developed a Comprehensive Pulmonary Disease Clinic that is patient-oriented and is structured to provide all of the necessary components of ambulatory primary medical care that are likely to be needed on a regular basis. It also has in-hospital facilities that provide a full range of services for acute and chronic respiratory failure and a staff trained in internal medicine and pulmonary disease.

Structure

Physical Plant — Martland's pulmonary disease clinic was developed to be pleasant and self-contained. It contains a waiting area, clerical office, small pulmonary function laboratory, treatment area, sputum induction room, rest room, examination rooms, and conference room. Adjoining offices for a nutritionist and social worker are present.

Hours of Operation — The patient-oriented clinic is easily accessible and is in operation daily for the convenience of the patient. Evening and weekend sessions are planned to accommodate working patients and students who would otherwise have to miss work or school to obtain medical assistance.

Table 3

Tuberculosis Morbidity and Mortality Rates Per 100,000 Estimated Population — Counties and Selected Places — New Jersey, 1972, 1973 and 1974

	Active Cases			*All Cases*			*Deaths*		
Residence	*1972*	*1973*	*1974*	*1972*	*1973*	*1974*	*1972*	*1973*	*1974*
State total	16.5	14.6	13.7	23.1	20.8	19.9	2.3	2.5	—
Newark	67.2	59.1	44.2	89.6	78.9	69.0	7.3	6.8	—

Appointment Schedule — Each patient is seen by appointment by the appropriate health care member. Initial comprehensive physicals are scheduled for one hour and revisits are scheduled for fifteen minutes. Clinic staff are scheduled to work in three hour blocks of time.

Records — A separate clinic problem-oriented record is kept, and appropriate entries are made in the regular hospital chart.

Internal Audit — The clinic manager, under the direction of the physician in charge, is responsible for a continuing review of the chart to insure conformity to the standards as structured by the staff.

Staff

Physicians — The physicians are primarily members of the Department of Medicine, Division of Pulmonary Diseases with representation from the Department of Pediatrics, and members of the Department of Surgery, Division of Thoracic Surgery — all of the New Jersey Medical School.

Nurses — The nursing staff is composed of a registered nurse, a practical nurse, and a nursing assistant. Primary supervision of tuberculin skin test reactors and household contacts of patients with tuberculosis is an important function of the nursing staff.[8] They also provide patient education and counseling in addition to the usual nursing duties.

Pulmonary Technology — A certified pulmonary technologist is available to do pulmonary function testing, deliver inhalation therapy, postural drainage, collect sputum specimens, and give patient education referable to pulmonary failure.

Laboratory — The Martland Hospital provides laboratory service. In addition, the State Department of Health Laboratory cultures specimens for M. tuberculosis.

Administration — The clinic manager is the administrator whose function is to provide full-time management services to the unit. She supervises the staff, patient flow, record control, and epidemiologic reporting.

Clerical Workers — In addition to the usual clerical duties, emphasis is placed on the prompt completion of patient-requested assistance in completing insurance and other forms, preferably on the same day as the request.

Social Service — The social worker assists the patient in dealing with other units of the hospital and outside agencies.

Nutritionists — The nutritionist is invaluable in assisting our patients with their dietary needs.

Field Workers — Experienced field workers from the State Health Department are the backbone for case finding and contact evaluation in the epidemiology of tuberculosis control. They maintain a constant liaison between the patient's home and the clinic by frequent patient contacts between clinic visits. They also follow-up and bring in patients who have lapsed appointments.

Rehabilitation — Rehabilitation services are available from the hospital when needed.

Consultation — The Martland medical staff is available to render consultation advice when requested by any part of our medical community. In turn, on-site consultations in other specialties of internal medicine or other specialties in medicine are available from other hospital divisions or departments.

Pharmacy — The Martland pharmacy prepackages antituberculosis medication in appropriate quantities for one month's treatment. These quantities are dispensed by the physician in the clinic who replaces each unit dispensed with a prescription. This expedient saves the patient from standing in line and prolonging his visit unnecessarily.

Case Reports

Tuberculosis can be cured in patients if promptly diagnosed and treated. Illness of such severity as to require at least the daily attention of a physi-

cian or nursing support over a period of several days is the major indication for hospitalization. When a strong out-patient service exists, there is no need to hospitalize patients who are not ill.

Examples of the management on an ambulatory basis of two difficult patients with tuberculosis follows:

Case 1 — A 42-year-old male was initially diagnosed as having pulmonary tuberculosis in June, 1973. Subsequently, he was sent to the New Jersey State Hospital for Chest Diseases where he was treated with "triple drug therapy" until his discharge in January, 1974. He was followed in a chest clinic where he did well on isoniazid 300 mgs/day and ethambutol hydrochloride 800 mgs/day until he stopped taking his medications regularly. His alcohol consumption increased.

Reactivation of his tuberculosis was demonstrated by positive smear and culture for mycobacterium tuberculosis. At the Martland Comprehensive Pulmonary Disease Clinic the patient was started on daily administration of streptomycin, one gram intramuscularly along with two drugs to which bacterial sensitivity was demonstrated. He continued to keep his appointments and to receive his medication, although he continued his excessive use of alcohol. His sputum converted to and remained negative.

This experience emphasizes the need for continued patient supervision and support until his tuberculosis is cured. Even under adverse circumstances such patients can be treated on an ambulatory basis.[9]

Case 2: A 48-year-old female was admitted to Martland Hospital on December 27, 1973. She had a six-week history of a dry, hacking cough productive of scanty quantities of sputum, fever, and night sweats. Her temperature was 101°, but vital signs were normal. Parotid glands were palpable and bilateral basilar rales were audible, but the remainder of the physical examination was unremarkable. Complete blood count, calcium, phosphorus, VDRL, rheumatoid factor, anti-nuclear antibody, and immuno-electrophoresis were normal or negative. Cold agglutinins were positive to a dilution of 1:8. Her chest x-ray showed bilateral hilar lymphadenopathy with infiltrates.

A five TU PPD Mantoux test was reactive to 15 mm. Mumps, coccidioidin, and histoplasmin skin tests were negative. Blood gases revealed a pH of 7.5, PCO_2 32.0, PO_2 68, TCO_2 25, HCO_3 24.5, base excess +3, O_2 saturation 95.2 percent. Liver and hilar lymph node biopsies showed noncaseating granuloma. Sputum smears and cultures for acid-fast bacilli were negative.

She was diagnosed as having sarcoidosis with a reactive tuberculin test. Her cough worsened and she became markedly short of breath with a decreased PO_2. The patient was started on prednisone, 60 mg/day, isoniazid 300 mg/day and ethambutol hydrochloride 800 mg/day. She improved and was discharged. When all sputum cultures for M. tuberculosis were reported as "no growth," ethambutol was discontinued.

The patient subsequently developed a florid arthritis involving the hands, shoulders, and knees, and diabetes mellitus. She also had two episodes of monilia pharyngitis and periodontal abscess. These problems were all managed in the clinic and the patient is now clinically doing well. Arthritis is in remission, diabetes is controlled on diet alone, and she still visits the clinic.

References

1. The doctor is out: A report on the Newark, New Jersey, Division of Health. Princeton, New Jersey, Center for Analysis of Public Issues, 1972.

2. 1970 Census of Population and Housing and 1972 Statistical Abstract of the United States Department of Commerce.

3. Number of physicians in Newark (selected years). Hospital and Health Planning Council of Metropolitan New Jersey, 1972.

4. Tuberculosis morbidity and mortality rates per 100,000 estimated population for counties and selected places — New Jersey, 1971, 1972, 1973 and 1974. Trenton, New Jersey Department of Health.

5. New Jersey State Department of Health — Personal Communications.

6. Reichman L B: Tuberculosis care: When and where? *Ann Int Med* 80: 402–406, 1974.

7. Reichman L B: Tuberculosis: Re-entering the mainstream. *Chest* 68:2–3, July, 1975.

8. Reichman L B: Monitoring preventive therapy patients for liver disease as well as compliance. *Chest* 68:178–180, August, 1975.

9. Sbarbaro J A and Johnson S: Tuberculous chemotherapy for recalcitrant out-patients administered directly twice weekly. *Am Rev Resp Dis* 97:895–903, 1968.

10. *Diagnostic Standards and Classification of Tuberculosis and Other Mycobacterial Diseases.* New York, American Lung Association, 1974. P 49.

11. American Thoracic Society Statement: Preventive therapy of tuberculosis infection. *Am Rev Resp Dis* 110:720, 1974.

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CASE REPORT

A case of chronic pulmonary berylliosis is presented. The exposure to beryllium compounds occurred in a New Jersey metallurgic plant, where copper is reduced from scrap metal. Most of the discarded material apparently consists of beryllium-copper alloys. The remelting operations produce massive dissemination of dust and fumes containing pulverized beryllium. The available protective breathing equipment appeared inadequate in the above case. The diagnosis of pulmonary berylliosis had been delayed for years. Measures are suggested for increased protection against noxious inhalants. Detailed occupational history and early recognition of the relationship between unusual dyspnea and specific air pollution produced by the work are needed for a valid diagnosis.

Pulmonary Berylliosis Following Exposure to Beryllium-Copper

Paul Slavin, M.D./Newark

Fourteen cases of occupational pulmonary berylliosis have been reported by me in two previous papers.[1,2] The patients, young women, had been employed in the manufacture of radio tubes during the years when the toxicity of the metal was still unknown and when the cathode coating contained beryllium compounds.[3] One of the patients had also been engaged in scraping off insulation from beryllium-copper wires. Two male patients have not been reported. One of them had been working on beryllium coating of fluorescent tubes. The second patient was employed in a supply room of a radio tube factory, where his work included scooping and weighing powdered beryllium.

Since the beryllium hazard became recognized, the use of the metal was eliminated in some industries, while protective measures have been instituted in others.[4]

The guarding against beryllium exposure appeared inadequate in a New Jersey metallurgic plant engaged in reducing copper from scrap metal. Discarded beryllium-copper products include worn telephone equipment, automobile scraps, and numerous other structural and mechanical parts. Remelting of enormous heaps of waste metal produces massive dissemination of dust and fumes containing pulverized beryllium. The workers employed full time in refining operations were provided with protective breathing equipment. However, the respirators were cumbersome to wear and caused overheating, sweating, and discomfort in breathing. To obtain relief, the respirator had to be removed at frequent intervals during work, allowing inhalation of dust and fumes.

Case Report

A 39-year-old male was first examined on September 13, 1966. He complained of cough, profuse expectoration, and disabling difficulty in breathing. His respiratory distress had been developing since 1954, his seventh year of employment in a metals' refining plant. He consulted private physicians and was treated for bronchitis. Cough medicines brought no relief and his shortness of breath grew progressively worse, causing inability to continue working.

The patient left school at the age of fifteen and worked as a trucker in a citrus packing house until he joined the army at age nineteen. His work in the citrus packing house and in the army involved no dust exposure. Chest roentgenograms were obtained on induction and on separation from the army, and were apparently normal.

On May 26, 1947, he began to work in a metals' refining plant, where copper is reduced from scrap copper and from ore. A pre-employment chest roentgenogram was taken, followed by periodic re-examinations. He had been working there for nineteen years on various jobs, each lasting from two to four years and each connected with heavy exposure to dust and fumes. His work included:

1. Feeding scrap metal into the cupola furnace, cleaning the dust box, the flue pipe, the dust trapping chambers in the baghouse, changing the dust bags, shoveling the dust into a wheelbarrow and dumping it into a freight car.

2. Hooking up metal and charging it into a furnace.

3. Removing copper cakes from moulds and putting sand into a furnace.

4. Loading an electric car with copper ore and unloading it into a furnace.

5. Tapping the molten metal from the furnace.

6. Operating a tractor-type machine to pick up scrap metal, and also to haul flue dust into a bin.

7. Operating a dust-collecting machine, cleaning the hoppers clogged up with dust, checking on the amount of dust going through the smoke stack into the air.

The patient did not smoke but he drank alcohol as a means of "washing out the dust."

He was 67.5 inches tall and weighed 148 pounds. Examination revealed tachypnea at rest, respiratory distress on slightest physical effort, and clubbed fingers. Blood pressure was 108/84 mm. Hg. Auscultation disclosed tachycardia and wheezing over both lungs. The liver and spleen were apparently not enlarged. The vital capacity was 2600 cc., 58 percent of predicted value for his height and weight. The chest roentgenogram showed diffuse granular densities producing a ground-glass appearance in both lung fields. Emphysematous changes were evident in the supraclavicular areas (Figure 1).

Figure 1 — September 13, 1966. Diffuse granular densities producing a ground-glass appearance of both lung fields. Emphysematous changes in the supraclavicular areas.

Based on the characteristic diffuse granular densities in both lung fields, increasing respiratory failure, and a nineteen-year occupational exposure to dust and fumes in the course of remelting beryllium-copper scrap, a diagnosis of pneumoconiosis and possible pulmonary berylliosis was made.

The patient was informed that his lungs were damaged by inhaled noxious dust and fumes. He returned to the plant with a written statement indicating radiographic evidence of diffuse fibrotic and emphysematous changes in both lung fields. He was re-examined in the plant's medical department and was told that his chest roentgenograms showed no abnormalities in the lungs and that his shortness of breath was due to nasal congestion. Unable to continue working, the patient filed a claim for occupational disability compensation.

To obtain additional substantiating evidence of pulmonary berylliosis, the patient was referred for an exploratory thoracotomy. A fragment of lung tissue and two mediastinal lymph nodes were removed. The pathological diagnosis was: Pneumoconiosis (Berylliosis). Sputum specimens were reported negative for acid-fast bacilli on smears and cultures.

A chest roentgenogram five and one-half months after the patient was first examined by the author showed wire ligatures in the right lung field and an increase in the granular densities. The emphysematous changes in the upper third of the left lung field were more pronounced, but the heart shadow remained normal in shape and size (Figure 2).

Figure 2 — February 28, 1967. Wire ligatures in the right lung field and increase in the granular densities. Emphysematous changes in the upper third of the left lung field are more pronounced. Heart remains within normal limits in shape and size.

The insurance carrier did not contest the claim for permanent total disability and the patient was awarded 100 percent compensation. The progressive course of his pulmonary ailment continued after cessation of exposure to the toxic dust and fumes. Recurrent respiratory infections aggravated his general debility.

The patient was last examined by the author on April 8, 1974. He complained of palpitation and extreme dyspnea. A gain in weight was apparently due to water retention. The heart rate was rapid, the second pulmonic sound was accentuated, and rales were heard over both lungs.

The x-ray on October 1, 1973 and on April 8, 1974, revealed bilateral elevation of the diaphragm, resulting from limited inspiratory capacity. The ground-glass appearance of the lung fields changed due to coalescence of the granular nodules with formation of larger densities. The pulmonary artery segment became prominent, indicating hypertrophy and dilatation of the right heart and of the stem of the pulmonary artery. Laboratory tests revealed transient albuminuria and elevation of the serum glutamic pyruvic transaminase. Hemoglobin was 16 grams, hematocrit 49 percent, and red cell count 4.9 million with macrocystosis; this suggests compensatory macrocytosis due to blood oxygen deprivation. Blood gases were not tested.

On January 4, 1975, the patient collapsed at home and was taken by ambulance to a neighboring general hospital where he was found to be dead on arrival. No autopsy was performed but the apparent cause of death was cor pulmonale.

Comment

For twelve years this patient had been seeking medical advice regarding his increasing difficulty in breathing. He was given cough medicine together with written statements that he was being treated for "bronchitis." No attempts were made to investigate the relationship of his work to the respiratory failure. No roentgenograms were obtained outside the plant, where the periodic examinations were apparently done in a very perfunctory manner. Thus, the diagnosis was not established until late.

Chest roentgenograms are of value, if they are reviewed by qualified examiners, who are aware of the patient's occupational exposure and are familiar with the radiographic patterns of pulmonary berylliosis.

It may be assumed that other beryllium casualties occurred at the plant, since the patient knew of workers who developed shortness of breath and were given sedentary jobs or were retired.

The protective breathing equipment supplied by the metallurgic plant was inadequate, since the respirator could not be worn continually while at work. Air-supplied respirators were evidently unavailable. Provisions for rest periods at frequent intervals should allow removal of the respirator in a shielded place, away from work. Four-hour shifts on jobs involving air pollution should replace the eight-hour shift. Periodic transfers to work in non-polluted areas would lessen the extent of exposure to toxic inhalants.

References

1. Slavin P: Diffuse pulmonary granulomatosis in young women following exposure to beryllium compounds in the manufacture of radio tubes. *Am Rev Tuberc* 60:755, 1949.

2. Slavin P: Diffuse pulmonary granulomatosis in young women following exposure to beryllium compounds. Further observations and report of nine additional cases. *Am Rev Tuberc* 65:142, 1952.

3. Vorwald AJ, editor: *Pneumoconiosis.* (Leroy U. Gardner Memorial Volume) New York, Hoeber Medical Division, Harper and Row, 1950, pp 3–9.

4. Stockinger HE, editor: *Beryllium, Its Industrial Hygiene Aspects.* United States Atomic Energy Commission, 1966, pp 290–292.

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Fifty percent of the hospitals in New Jersey have been surveyed for continuing medical education during a two-year period. This is a preliminary report describing conditions and trends in continuing medical education programs in community hospitals in New Jersey at this time.

Continuing Medical Education: A Profile of Community Hospitals in New Jersey

James A. Rogers, M.D., Paterson*

Surveys of continuing medical education activities in the hospitals of New Jersey by the Committee on Medical Education of The Medical Society of New Jersey were begun on August 24, 1973. This report includes the hospital visits from that time to August 8, 1975. The survey teams consisted of at least three physicians, two of whom had been on three or more hospital surveys, thus insuring that experienced surveyors were present at each hospital visit. Fifty-four physicians were involved as members of the survey teams and many of these were directors of medical education at their own hospitals. In this manner the Committee on Medical Education developed experienced members for survey teams. A large number of physicians were exposed to a very important learning experience, and their input helped to enrich the process. Many physicians volunteered the information that visits made to other hospitals helped them to improve programs in their own hospitals.

Survey Procedures

Hospitals requesting a survey applied to the committee for a pre-survey form that was completed and returned with a fee of $25. The appointed team visited the hospital, interviewed the designated members of the hospital staff and administration, visited the instructional facilities, the record room and the library, and observed what learning experiences were taking place. Following this, the survey team met with the hospital representatives, presented its findings and offered suggestions for improvement and whatever constructive criticism was necessary. The survey team's report on the strengths and weaknesses observed and the recommendations made was then forwarded to the committee, which reviewed the findings in detail and determined whether the program was to be disapproved, and the reasons for disapproval, or approved and for what duration. In all instances, the strengths and weaknesses and the recommendations were included in the report which was then returned to the respective hospital with a copy forwarded to the American Medical Association. All institutions expressed appreciation for the informal consultation and exchange of ideas that resulted from the survey.

Survey Team Observations

During the period covered by this report, 61 institutions, about half the total number in New Jersey, were surveyed. Ten of these received a one-year probationary approval, 16 a two-year approval, seven a three-year approval, and 20 a four-year approval. Eight hospitals surveyed were not approved by the Committee.

The information obtained from the questionnaires and the survey teams indicates that less than half of the hospitals had continuing medical education programs of 5 to 20 years in duration and the rest had programs of less than 5 years' duration. Thirty-six percent of the hospitals surveyed had a medical school affiliation.

Forty-seven percent reported active residency programs with 997 residents in training. Fifty-five percent had a director of medical education, either part-time or full-time. Forty-five percent did not have a director of medical education but did have an active committee on medical education. Planning for the continuing medical education programs in 60 percent of the hospitals was

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done jointly by the committee, the director of medical education, and the department chairmen who, in most instances, were members of the committee. In the remaining hospitals, planning was done independently by department chairmen, by the director of medical education, or by the committee on medical education, particularly when a director of medical education was not present. Remarks from the survey team indicated that the programs planned jointly were more favorably accepted by the medical staffs. Very little program planning involved nurses or allied health personnel. Seventy percent of the hospitals had staff members, active in the continuing medical education programs, who had a medical school clinical faculty appointment. Furthermore, in about half the hospitals, up to 40 percent of the voluntary staff taught in the continuing medical education programs of the hospital.

Methods used to determine educational needs in the continuing medical education program varied. Of the 53 hospitals approved, 95 percent relied upon morbidity and mortality results, participant interest, or faculty perceptions to determine educational needs. Fifty-four percent reported using medical audit results, in varying degrees, along with the methods used by the other hospitals to determine needs. However, very few of the hospitals are using medical audit effectively at this time.

Eighty-one percent of the hospitals reported subjective evaluation of their programs, and three percent are using medical audit in a limited way to evaluate their continuing medical education programs. However, many hospitals are beginning to implement this important tool for objective evaluation of the programs. In this regard, 77 percent of the hospitals reported that their curricula and programs usually met their objectives, and six percent of the hospitals always attempted to meet their objectives.

Seventy percent of the hospitals had adequate facilities, such as auditorium, classroom and meeting space, which in many cases were shared by arrangement with other disciplines. Board rooms, cafeterias and miscellaneous small rooms around the hospital also were used for educational meetings on occasion. Many non-teaching areas were used for learning experiences, and the survey teams were interested to learn that future building plans of many hospitals provided for more teaching facilities.

During each team visit, at least one educational session was observed in operation. The observers felt that the content and quality of the events were excellent in 35 percent, good in 55 percent, fair in 5 percent; there was no comment regarding the remaining 5 percent.

Medical Record Rooms

Survey teams studied the medical records to evaluate the physicians' approach to patient problem-solving. They also noted the proficiency of record keeping and the degree to which medical audit and utilization review were used to provide feedback into the continuing medical education curriculum. It is important to note that many of the record rooms were employing one of the three widely used medical audit systems, PAS-PAS/MAP, HUP, or JCAH;† however, the extent of utilization varied. Medical audit committees and record room personnel volunteered the information that their involvement in these systems is increasing steadily and is being used for the purposes of meeting JCAH, PSRO, and continuing medical education standards. Because of these requirements, records are now beginning to demonstrate more accurately patient problem solving. With these points in mind, the survey teams found that 65 percent of the record rooms were good to excellent, 25 percent were fair, and there was no comment on 10 percent.

Medical Libraries

The hospitals which were surveyed and accredited all had medical libraries. Less than half were used jointly by other hospital personnel. Fourteen hospitals with capacities of 500 beds or more had a full-time librarian; only one this large did not. In the 300 to 500 bed hospital 14 had a full-time librarian and four had a part-time librarian. In the 200 to 300 bed institution,

†PAS-PAS/MAP — Professional Activity Study-Professional Activity Study/Medical Audit Program
HUP — Hospital Utilization of Pennsylvania
JCAH — Joint Commission on Accreditation of Hospitals

two had a full-time librarian, eight had a part-time librarian, and four had none. Six hospitals of less than 200-bed capacity size were surveyed and two of these had a part-time librarian and four had none. These librarians worked exclusively in the library and had no other tasks. Seventy percent of the hospitals had photocopy facilities assigned to the library, while 30 percent shared this service with another department or failed to offer it at all.

The number of books in the library varied according to the size of the hospital and the number of personnel sharing it. Eight hospitals reported having from 4,000 to 10,000 books, 23 had from 750 to 4,000 books, 20 had from 150 to 750 books, and the remaining 11 hospitals gave no definite figure. It was clear, however, that many hospitals are enlarging and updating their libraries to meet the educational demands. This was frequently reflected in the number of new books being added annually. Large, well-equipped and well-staffed libraries added 20 to 80 new books a year and subscribed to from 100 to 200 journals a year. The newer, and in many cases, smaller libraries are either changing from a part-time to a full-time librarian, or are seeking a full or part-time librarian for the first time. Efforts to bring their libraries up to standards are evidenced by the acquisition of 100 to 200 new books a year and subscriptions to 20 to 100 journals a year. Survey team remarks indicate increased activity in libraries where it had previously been slight or nonexistent.

Library budgets varied with the hospital's educational programs and activities. In many instances, the budgets represented monies spent only on books and journals and did not include important overhead items such as salaries, space, heat, light, photocopy facilities, and so on. Twenty-four percent of the hospitals reported a library budget ranging from $1,000 to $6,000, 18 percent from $6,000 to $8,000, and 22 percent from $10,000 to $20,000. Twenty-one percent absorbed their library expenses in other budgets and 15 percent reported no library budget.

Budget for Medical Education

One of the most difficult areas in which to obtain a cost picture on continuing medical education was in the budget, especially in those hospitals not having an undergraduate or postgraduate medical education program or nursing or allied health training programs. The information indicated that no attempt was made to break down the budget into the various component costs of undergraduate and graduate education, continuing medical education, residencies, director of medical education and secretarial salaries, and overhead items including equipment, supplies, telephone, travel, space, honoraria, and so on.

The figures indicated in the table below show the apparent need for a cost-accounting mechanism to identify sources and purposes of funds for various educational activities. This is especially necessary for continuing medical education which can be identified as an independent entity. It is obvious that continuing medical education is synergistic with graduate and postgraduate education where they exist, which makes it difficult to separate the two in the budget.

Table
Medical Education Budget

Percentage of Hospitals	Total Budget for Continuing Medical Education
18	$5,000 or less
4	$5,000 to $10,000
9	$10,000 to $20,000
9	$20,000 to $50,000
8	$50,000 to $100,000
3	$100,000 to $300,000
1	$300,000 to $500,000
4	$500,000 to one million
3	one million or more
22	information not available

Many surveyors felt that many hours of teaching by the medical staff are given voluntarily and without compensation. The surveyors believe that an accounting of this time should be kept and that a dollar value should be placed on this service. The inclusion of this item could be considered as a grant or donation, which is important because it would result in a more realistic representation of the cost of continuing medical education.

In determining the attitudes of the hospital administration, medical staff, and board of trustees toward continuing medical education, it

was noted that the feelings of all three were the same in any given hospital. Over 60 percent were "enthusiastic," and over 35 percent were "understanding." The remaining 5 percent were "tolerant" to the whole idea. In those hospitals where the groups were "enthusiastic," the survey teams noted that a program of merit existed prior to the survey or that knowledgeable medical staff members had informed the administration and board of trustees, as well as their own colleagues, of the importance of continuing medical education activities in their own hospital. In those hospitals where the groups were "understanding," the program resulted from external pressure, such as the requirement for continuing medical education credits for physicians, PSRO utilization review regulations, medical audit requirements by the Joint Commission for the Accreditation of Hospitals and other regulations. Hospitals are also realizing the value of continuing medical education as it pertains to patient care, excellence of medical staff and as a competitive means to attract new physicians to the staff, especially if a neighboring hospital has a successful ongoing program. Many hospitals have recognized community response to the importance of continuing medical education activities. These factors all have had a tremendous influence on the attitudes of the entire hospital family toward continuing medical education.

Strengths and Weaknesses

Much information is expressed in the summary of strengths and weaknesses as well as the recommendations by the survey teams, which presented the observations of 54 individuals in various combinations. Every effort was made to avoid sending the same team on more than one hospital survey, but there was no attempt to limit the freedom of expression of any team. For the purposes of this paper, their comments are grouped together in several categories.

A summation of the strengths reported is as follows:

(1) Over 60 percent of the hospitals approved demonstrated positive attitudes as shown by the commitment of the administration, board of trustees and medical staff. In over 45 percent, a strong motivation and philosophy toward continuing medical education was expressed in the voluntary contribution to teaching by the staff. Involvement in community and consumer health education programs was noted in close to 40 percent of the hospitals surveyed.

(2) Facilities such as good libraries with audio-visual equipment, record rooms, and adequate areas for teaching were observed in over 70 percent of these hospitals.

(3) Organized educational programs of merit for graduate, as well as allied health education, were noted in over 60 percent of the hospitals; in hospitals affiliated with a medical school, strong undergraduate programs existed.

(4) Medical audit and utilization review activities are important tools in over 45 percent of the hospitals, while the problem-oriented record is used in about 10 percent of the hospitals. In about 35 percent of the hospitals tissue audit, tumor board, morbidity and mortality, and other committees contributed much to medical education.

(5) Over 50 percent of the hospitals surveyed have active medical administration departments with either medical directors or directors of medical affairs and, in many instances, full-time department heads.

(6) Many methods are used to identify educational needs and to incorporate them into the curriculum. Planning, participation and coordination of programs is evident within the hospital and, in some instances, out in the community.

(7) Adequate budgets were demonstrated in only eight percent of the hospitals surveyed. In the great majority, the medical staffs had contributed to the operation of the libraries and the educational programs. Although all hospitals had budgets for their programs, costs were identified rarely.

(8) Objective documentation of attendance at educational program activities was demonstrated adequately in a little over 10 percent of the hospitals surveyed, however, plans for such documentation were evident increasingly.

The weaknesses were reported as follows:

(1) In about 25 percent of the hospitals surveyed, positive attitudes of interest, cooperation, participation or support were lacking on the part of the medical staff, administration or the board of trustees, either individually or in combination.

(2) Facilities, such as libraries, classrooms, and audiovisual aids, were less than adequate in about 30 percent of the hospitals surveyed.

(3) Over 42 percent of the hospitals lacked a realistic budget presentation.

(4) In 45 percent, the medical audit system employed was not utilized adequately to provide input into continuing medical education.

(5) Only 20 percent of the hospitals recognized the need for a director of medical education and for a better attendance and record-keeping system.

(6) Twenty-six percent demonstrated a lack of coordination of educational programing in the hospital or community or both.

(7) In over 40 percent of the hospitals, there was a need to develop methods of evaluating educational needs and objectives and to measure the effects of the educational programs on physician performance.

The survey teams made the following recommendations:

(1) Fifty-five percent of the hospitals were advised to develop a more realistic budget.

(2) Sixty-two percent were urged to institute or improve a medical audit program with effective evaluation procedures.

(3) The suggestion to improve educational facilities, including the library, was made in about 50 percent of the hospitals.

(4) Forty percent were remonstrated to establish or improve their medical administration activities.

(5) About 30 percent were given advice on how to increase medical staff involvement.

(6) Twenty-five percent received recommendations to improve cooperation, coordination and communication among the educational components of the hospital and the community.

Conclusion

Evaluation of continuing medical education programs in community hospitals indicates that change is taking place. To measure these changes in concrete terms would be premature at this time; however, the evidence indicates changes or improvements in the following areas:

(1) There is evidence of a more positive attitude toward and an improvement of continuing medical education programs in community hospitals.

(2) There is evidence of the increasing utilization of, and impact from, the medical audit review process in the feedback loop to the continuing medical education curricula in the community hospitals, which has resulted in an improvement in patient care.

(3) There is evidence on the part of the administration, board of trustees, and staff of a greater awareness of the need and direction in medical education and its proper place in the hospital's priority scale.

(4) There is evidence of improvement and greater utilization of library facilities and better organization of continuing medical education curricula.

(5) Voluntary feedback indicates improved participation and interest in continuing medical education programs by members of the hospital medical staff and health professionals.

The consensus is that the above points indicate an improvement both in attitude and behavior toward continuing medical education. It must be kept in mind that these findings represent a trend and direction of a program in its very early stage of development and should not be interpreted as final accomplishments.

"Dr. Rush: Rebel for Humanity"

An original drama, "Dr. Rush: Rebel for Humanity," which highlights events in the life of Dr. Benjamin Rush will be performed this summer in the Independence National Historical Park in Philadelphia. Sponsored by Merck Sharp and Dohme as a contribution to the Bicentennial observance, the play is set in Philadelphia in the year 1797, a low period in Rush's life. Persistent criticism of the practices of his colleagues had lost him the support of the medical establishment and he was being attacked in the press by a British journalist. But, after ten years of working with the mentally ill at the Pennsylvnia Hospital, Dr. Rush was encouraged to see his efforts at humane, imaginative, unconfining therapy for these patients gradually produce favorable results.

Performances will be held each Saturday and Sunday from June 19 through August 29 at noon, 2 p.m., and 4 p.m. just outside the Second Bank of the United States, Chestnut Street between 4th and 5th. Admission to this 30-minute play, performed by professional actors, is free.

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Prophylactically the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS**: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components. **WARNING**: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS**: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS**: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

April 25, 1976

A regular meeting of the Board of Trustees was held on Sunday, April 25, 1976, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Distribution of List of Delegates to MSNJ . . . Directed, in response to requests from component societies and individual delegates, that the complete list of delegates be distributed to the component societies; distribution to the individual delegates is left to the discretion of the component societies.

American Medical Student Association of New Jersey . . . Approved the following recommendations elicited as a result of discussions between MSNJ and the New Jersey Chapter, AMSA:

(a) That MSNJ offer a grant to AMSA-CMDNJ in the amount of $200 to help to defray chapter meeting expenses.

(b) That AMSA-CMDNJ be extended an invitation to have a representative attend MSNJ Board meetings on a regular basis as liaison representative.

Tenure of Executive Director . . . Referred the following recommendation from the Executive Director to the Special Committee on Long Range Planning and Development for consideration and report to the Board within three months:

That the tenure of any person as Executive Director (Chief Executive Officer) of The Medical Society of New Jersey shall be limited to fifteen (15) years.

Supportive reasons for the above include but are not limited to the following:

(a) Such a policy is sound corporate management and assures the Society of the infusion of new talent, vigor, and enthusiasm at the top management level on a predictable and routine basis.

(b) The office in question involves a certain fiduciary obligation actively to prod the organization to adapt to a constantly changing environment. Repetitive failure would produce apathy and dampen enthusiasm. Repetitive success could form a base of power which could become subject to abuse. Limited tenure would circumscribe the detrimental possibilities of such events.

(c) The terms of officers and trustees are currently limited, while that of the Executive Director is not. The maximum tenure of any person as a trustee and presidential officer under current and proposed policy would be fourteen (14) years. Limiting the Executive Director to fifteen (15) years assures continuity but at the same time grants conformity across the spectrum. Further it allows sufficient time to accrue respectable pension benefits but would reduce pension expenditures and salary demands to a manageable level for MSNJ.

New Jersey Mental Health Planning Committee . . . Approved as amended the following recommendation from the Council on Mental Health, concerning a report on the activities of the New Jersey Mental Health Planning Committee whose procedures have been questioned, i.e., absence of parliamentary procedure, absence of minutes, and so on:

(a) That the Board of Trustees alert all societies and professional groups in medicine about the necessity of their joining in and being aware of proposed legislation and possible laws affecting the treatment of mentally ill patients. Organizations to be alerted are: New Jersey Psychiatric Association, New Jersey Chapter, American College of Emergency Physicians, New Jersey Academy of Family Physicians, New Jersey Society of Internal Medicine, and the New Jersey Association of Osteopathic Physicians and Surgeons.

(b) That the executive staff of MSNJ, in consultation with the Council on Mental Health, investigate various procedures and alternatives available to counteract the implementation of the recommendations of the New Jersey Mental Health Planning Committee and report back to the Board with their conclusions.

Note: The Board amendment was the addition of section (b) of the above recommendation.

Public Relations . . . Approved the report of the Council on Public Relations which included the following suggestions concerning MSNJ's legislative program and an offer of the Council's services to the Council on Legislation for whatever media coverage is deemed advisable:

a. Reinforce the concept of the keyman system and keep the system current and active at the grassroots level.

b. Keymen should be members of JEMPAC, if practical.

c. A workshop for the keymen should be scheduled to explain the bills and MSNJ's position.

d. County societies should consider having meetings with the members of the press and legislators in their area.

e. Combine legislative and JEMPAC activities with the keyman system, where possible, to the extent that they overlap.

f. Tallies on bills of importance should be reviewed by the Board of Trustees, Council on Public Relations, Council on Legislation, and published in the *Newsletter*.

A. H. Robins Award . . . Approved the following recommendation from the Council on Public Relations:

That Lena Edwards, M.D., of Ocean County, be nominated for the A. H. Robins Award.

Media Releases . . . Approved the recommendation from the Council on Public Relations that the following public relations releases be made available for use by newspapers, as posters, as inserts in mailings by physicians, utilities, and service and fraternal organizations, and for radio and TV public service spots:

1. The Drinks Are On You
2. Fat Chance
3. Don't Get Hooked
4. Bargain Drugs Are No Bargain
5. You're Still Number One In Our Book
6. Where's The Doctor When He's Out
7. House Calls
8. What Price Health

Finance and Budget Committee . . . Approved the report of the Committee on Finance and Budget, including the following recommendations:

Note: At its meeting on 3/21/76 the Board had approved the recommendations of the Special Committee on House Maintenance, Staff Policies, and Personnel Relations concerning 1976-1977 salaries — Executive, General Staff, Journal, Convention Manager — and salary taxes, which subsequently (4/8/76) were approved by the Committee on Finance and Budget and included in the proposed 1976-1977 budget.

1. *Secretary* —

That the Board of Trustees adopt the policy to exclude the Secretary of The Medical Society of New Jersey as a regular attendee at the AMA Annual and Clinical Meetings.

2. *President* —

That the Board of Trustees authorize an increase from $10,000 to $15,000 in the budget allocation to reimburse a president for loss of practice while holding the office of President of The Medical Society of New Jersey, effective with the fiscal year beginning June 1, 1976.

3. *Academy of Medicine* —

(a) That the Board of Trustees authorize that the total sum of $25,000 allocated in the 1975-1976 budget be paid to the Academy of Medicine.

(b) That up to $25,000 be included in the budget of the Committee on Medical Education for 1976-77 for post-graduate educational programs and activities, and that the Committee, with concurrence of the Board of Trustees, be empowered to expend up to this amount in the course of the administrative year, on the basis of need reflected in the 1976-77 fiscal report to be submitted to the Committee on Finance and Budget.

4. *Archives and History* —

That the Board of Trustees concur in the decision of the Committee not to provide an allocation of $12,000 to cover the cost to publish the biography written by Morris H. Saffron, M.D. entitled, *Surgeon General John Cochran: His Life and Letters.*

5. *CMDNJ Foundation* —

That the Board of Trustees approve the allocation of $10,000 for the Foundation of the College of Medicine and Dentistry of New Jersey (E-5), for 1976-77, as well as for each subsequent fiscal year through 1980-81, until a total contribution of $50,000 is achieved.

6. *Medical Student Loan Fund* —

That the Board of Trustees approve the solicitation of the component societies by the members of the Board to contribute any excess funds they may have to MSLF which would allow the Fund to extend further consideration to other qualified applicants in the new fiscal year 1976-77.

7. *Assessment* —

That the 1977 per capita assessment be set at $120; that of the $120 per capita assessment, $5 and $2.50 be designated respectively for the member's *Journal* subscription and Annual Meeting registration; and that the full amounts realized as of May 31, 1977, be applied in 1977.

Note: This assessment is based on a proposed budget of $858,914 for 1976-1977.

8. *New Jersey Foundation for Health Care Evaluation* —

(a) That the Board of Trustees approve a 1977 special per capita assessment of ten dollars ($10) to serve as a grant to the New Jersey Foundation for Health Care Evaluation; that this special per capita assessment be set in addition to, and not part of, the budgetary assessment; and that both be paid at the same time.

(b) That the Board of Trustees rescind its action of March 21, 1976, approving a $26,000 expenditure to NJFHCE; that further consideration be made at the reorganization meeting of the Board of Trustees at Cherry Hill in June, 1976.

Emergency Medical Care . . . Tabled consideration of the following recommendation from the Committee on Emergency Medical Care pending determination of who is qualified to certify CPR instructors in New Jersey:

That all lifeguards in the State of New Jersey, upon their employment, be trained and certified in cardiopulmonary resuscitation and that a card be presented as proof of certification. (Notice of this recommendation should be made to the New Jersey State Department of Health and to the Boards of Chosen Freeholders.)

. . . Directed that MSNJ be recorded as favoring CPR instruction and certification for all lifeguards in New Jersey, and that this issue be referred to the Council on Legislation for the drafting of appropriate legislation to require that all lifeguards be trained and certified in CPR.

Medicaid . . . Directed that the Committee on Medicaid be informed that the avenues of liaison requested in the following recommendation are currently in existence and should be utilized.

That a liaison between the Council on Public Relations, the Council on Legislation, and the special committee on Medicaid be formed.

The Medicaid Committee suggested that Stephen J. Rodger, M.D., Salem County Medical Society, be designated as its liaison to attend the Council on Public Relations meetings and that Daniel J. O'Regan, M.D., Hudson County Medical Society, be designated as its liaison for the Council on Legislation meetings.

Legislation . . . Approved, as amended, the report of the Council on Legislation, including the following recommendations:

1. *From the Committee on Professional Liability:*

That a letter from the Council on Legislation be forwarded to all the county societies urging them to develop a physician-legislator contact and to submit an updated list of their contact positions with their existing legislators to the Council at their early convenience.

2. *From the Board of Trustees:*

Council agreed that the intent of a recommendation from the Committee on Emergency Medical Care, referred to the Council by the Board of Trustees (which called for amending the Medical Practice Act to permit individuals, who have satisfactorily completed the emergency medical technician program at CMDNJ, to work in hospital emergency departments under direct supervision of a plenary licensed physician) is covered adequately in Senate Bill 831 (see below).

3. *Current Legislation:*

. . . Approved the positions on the following bills recommended by the Council on Legislation except in reference to Senate Bill 720.

S-720—To delete certain restrictive provisions in the definition of podiatry under R.S. 45:5-7 permitting the surgical scope of the practice to embrace the entire foot.

Note: The board amended the position of *ACTION DEFERRED* to *ACTIVE OPPOSITION* because MSNJ believes the scope of surgery should not be extended beyond what it presently encompasses.

S-10—To permit the courts to require medical or psychiatric treatment or term of imprisonment of up to 3 months for a second offense for operating a motor vehicle while under the influence of alcohol. *APPROVED*

S-34—To create a commission to develop a State plan for the delivery of mental health services and to appropriate $25,000. *APPROVED*

S-35—To establish a Department of Human Services where the duties shall include development and implementation of comprehensive State plans to provide for continuity of care for all persons requesting and receiving treatment in institutions, agencies, and programs under its jurisdiction, including the fullest utilization of available community resources by purchase of care and of service contracts with private agencies and individuals, to transfer various institutions and non-institutional agencies from the Department of Institutions and Agencies and to appropriate $500,000. *NO ACTION*

S-40—To establish a Department of Mental Health in the Executive branch of government and to appropriate $100,000. *APPROVED*

S-91—To provide for licensing of social workers. *DISAPPROVED,* because the bill would permit social workers to use medical modalities and therapeutics when they do not have the training, education, or experience to function in such a capacity.

S-93—To authorize the State Board of Higher Education to contract with Fairleigh Dickinson University School of Dentistry for acceptance of New Jersey students. *ACTION DEFERRED,* pending further information from the New Jersey Dental Association.

S-94—To create a commission to study and evaluate the State's institutions, agencies, and services for the mentally ill and to appropriate $25,000. *DISAPPROVED,* because an existing study is currently under way.

S-99—To provide for the licensing of audiologists and speech pathologists. *DISAPPROVED,* because the bill does not provide that the audiologist is to function at the direction or prescription of a duly licensed physician, a factor which is necessary for sound health care and it is questionable whether licensing would serve any useful purpose.

S-100—To amend the Practicing Psychology Licensing Act in several respects concerning the membership on the Board, license fees and continuing education requirements. *ACTION DEFERRED,* pending further information from the Council on Mental Health.

S-103—To create a joint underwriting association to provide medical malpractice insurance on a self-supporting basis without subsidy from its members or their policyholders. *NO ACTION*

S-152—To define "dwelling" in the law prohibiting the use of lead paint to include day care centers and nursery schools. *APPROVED*

S-157—To provide for retention of hospital x-ray films in any size reproductions which maintain the clarity of the original. *NO ACTION*

S-179—To require the Commissioner of Insurance to fix a time and place for a hearing upon an application of insurance rate increase or decrease and to give notice to the rating organization of which the applicant is a member and to the Director of the Division of Rate Counsel of the Department of the Public Advocate. *APPROVED*

S-212—To provide that nothing in the act concerning Health Care Facilities shall be construed as a delegation of authority to control charges made by health care facilities for services rendered except as otherwise provided. *APPROVED*

S-213—To provide that no certificate of need shall be issued or denied without approval of the Board and in the event an adverse recommendation has been issued by the State Health Planning Council, the applicant shall receive notice and be granted an opportunity for hearing. *DISAPPROVED,* because this bill would complicate the effective administration of a law that is presently complicated enough.

S-215—To create a guaranteed medical education loan program within the Higher Education Assistance Authority and to appropriate $50,000. *APPROVED*

S-220—To authorize the expenditure of funds for the establishment and maintenance of eye bank facilities and to appropriate $25,000 for entering into agreements with the New Jersey Eye Bank at the Newark City Hospital. *APPROVED*

S-222—To establish a Drug Utilization Review Council which shall prepare a list of interchangeable drug products and to provide that no drug shall be included in the list until after a public hearing and to appropriate $75,000. *DISAPPROVED,* because no agency at the Federal level has been able to compose a list of therapeutically interchangeable drugs.

S-604—To limit the liability of health care providers for medical malpractice claims and to create a patients' compensation fund and a Residual Malpractice Insurance Authority. *ACTIVE SUPPORT*

S-720—To delete certain restrictive provisions in the definition of podiatry under R.S. 45:5-7 permitting the surgical scope of the practice to embrace the entire foot. *ACTIVE OPPOSITION* (See page 537 re Board action)

S-721—To permit issuance of limited certificates for x-ray technician in foot radiography. *APPROVED*

S-722—To provide that graduates of accelerated courses in approved colleges of podiatric medicine and surgery shall be eligible for licensure in New Jersey. *APPROVED*

S-831—To provide that the act concerning the practice of medicine and surgery shall not apply to the performance of any act at the direction and supervision of licensed physician by a person working under a job description approved by the Board of Medical Examiners and possessing qualifications established by the Board. *DISAPPROVED,* because the scope of this bill is too broad and should be restricted.

S-903—To provide that physicians, dentists, podiatrists, optometrists, and pharmacists who serve as a member of a hospital or extended care facility, hospital medical staff, or peer-review committees shall not be liable in damages to any person for any action taken or recommendations made by him within the scope of his function as a member of such committee. *ACTIVE SUPPORT*

S-1240—To fix the Statute of Limitations for personal injury actions at either two years from the date the act allegedly caused the injury or two years from the date the plaintiff discovered the act but in no event later than seven years from the date the act occurred and to provide for tolling these time limitations in any action against a health care provider for fraud, intentional concealment or the presence of a foreign body which has no therapeutic or diagnostic purpose or effect in the injured person. *ACTIVE SUPPORT*

S-1241—To establish a period of up to 10 years for actions based on personal injury to persons under 18 years of age. *ACTIVE SUPPORT*

S-1242—To define the rights and duties in the physician-patient relationship both inside and outside a health care facility. *ACTION DEFERRED,* pending recommended changes in the bill.

S-1243—To define the meaning of "informed consent" to a health care procedure. *ACTIVE SUPPORT*

S-1244—To require expert medical testimony concerning deviations from accepted standards in medical malpractice litigation except where a foreign substance was unintentionally left within the body of a patient during surgery or a surgical procedure was performed on the wrong patient, organ, limb or part of a patient's body where a rebuttable

presumption shall occur and expert medical testimony shall not be required. *ACTIVE SUPPORT*

S-1245—To provide that a physician having knowledge of medical incompetence shall report such information to the Board of Medical Examiners. *ACTIVE SUPPORT*

S-1246—To authorize the defendant in an action for alleged medical negligence to petition the court for a reduction of damages to the extent such costs are paid or payable or indemnified by insurance, governmental employment or service benefit programs. *ACTIVE SUPPORT*

S-1341—To provide that no action may be brought on an agreement or promise of cure relating to medical care or treatment unless such agreement or promise is in writing. *ACTIVE SUPPORT*

S-1342—To establish the Health Care Provider Liability Act concerning civil actions against health care providers and to establish a patient's compensation fund. *ACTIVE SUPPORT*

. . . Approved a recommendation that the following bills be noted and filed as not of intimate concern at this time.

S-105—To provide under the Conflicts of Interest Law that no officer or employee employed by any State agency regulating any profession, business or industry shall be employed within two years after termination of such employment by any such person or firm over whom or which the persons in the regulatory agency had the power of regulation.

S-168—To provide that any person over 18 years of age who is not addicted to the use of morphine, cocaine, heroin, opium or any derivative who sells or distributes such drugs shall be guilty of a high misdemeanor and punishment by life imprisonment.

Eye Health Screening Program . . . Approved the following recommendation from the Council on Public Health:

That the Eye Health Screening Program be conducted in 1976 during the week of September 13.

Note: The results of the 1975 eye health screening program showed that of 10,522 examined there were 575 tonometry suspects.

Maternal Deaths . . . Approved the following recommendations from the Council on Public Health, as amended by the Board (italics indicate amendment):

That the Board of Trustees contact the Department of Health to *request* the Senior Public Health Physician to attend all meetings of MSNJ's Special Committee on Maternal and Infant Welfare, and that in his summaries of the State's maternal deaths he present just the factual evidence. The conclusions to be determined therefrom should evolve after consideration by MSNJ's Committee on Maternal and Infant Welfare in consultation with Dr. Kreitzer.

2. That an anesthesiologist be appointed as a permanent member of the Special Committee on Maternal and Infant Welfare because there are always a certain percentage of maternal deaths that are anesthesia-related.

Teenage Alcohol Education . . . Approved the following recommendation from the Council on Public Health:

That the Board of Trustees communicate with the Commissioner of Education to formulate a list of school physicians, and, if possible, update the list each year and send it to The Medical Society of New Jersey and to the State Department of Health.

Note: Resolution #27 (1975 House of Delegates), which calls for a survey on the extent of teenage alcoholism and an intensified educational program on the subject, had been referred to the Council on Public Health for implementation. Council is in full agreement with the resolution but at the present time it is not feasible for such a survey to be made.

Rules Affecting Public Health Problems . . . Approved the following recommendation from the Council on Public Health:

That the Board of Trustees refer all matters pertaining to public health problems directly to the Council on Public Health for their consideration and input.

Note: The above resulted from the Council's concern because it was not informed of the hearings dealing with the Department of Health rules and regulations on immunization.

Ad Hoc Committees . . . Referred to the Committee on Long Range Planning and Development the following recommendation from the Council on Public Health, which was offered in view of poor attendance and infrequent scheduling of meetings of the established special committees to the Council on Public Health.

That the Board of Trustees consider and study the appointment of ad hoc committees in lieu of special committees.

Medical Education . . . Considered the report of the Standing Committee on Medical Education and took the actions indicated.

In response to a directive from the Board of Trustees the following guidelines for use in evaluating requests for exemption from the House of Delegates-mandated 150-hour continuing medical education requirement were developed:

1. Exemption should be granted to any physician who has been incapacitated completely during the last three years.

2. Emeritus membership is defined as "no longer in active practice" and physicians with this status would be exempt. However, if they are employed full-time in a medical position they would not be eligible for exemption. (Anyone working 20 hours or more per week, or 1,000 hours per year would be considered fully employed.)

3. Requests for exemption due to inability to travel because of age or disability will be granted only if the physicians are so incapacitated that they are confined to the house and cannot make even short journeys. Patient visits would also be at a minimum. Most hospitals throughout the State have accredited courses for Category 1 and there are very few people who cannot find accredited courses within a short travel distance from their home. If they are seeing patients at all and can't travel, Categories 3 through 6 can be utilized.

4. Any physician who, because of illness, is unable to practice, will be excused from the educational requirement for this period of disability; should he return to active practice he will be required to fulfill this requisite for membership in the Society at the end of the grace period engendered by the illness.

5. Any physician no longer treating patients, but working in an administrative position in which there is patient care evaluation such as with the VA, insurance companies, or third party payers, will not be excused, *but will be granted an initial extension no later than June 1, 1979.*

The Committee offered the following recommendations:

(a) That the Board of Trustees approve the Guidelines established by the Committee on Medical Education for granting exemptions from the continuing medical education requirement as stated above.

. . . Approved the above recommendation (a) and the guidelines, as amended.

(b) That physicians failing to comply with the continuing medical education requirement for this first three-year period be granted only a six-month extension, to be implemented as of June 1, 1976.

. . . Referred the above recommendation to the Committee on Medical Education for determination of a policy decision. (*Note:* It would not be in compliance with the current Bylaws for the Board to act on the above recommendation.)

. . . Directed that an appropriate response be made to the Ocean County Medical Society's comment "that since MSNJ adopted the CME requirement it should be the responsibility of MSNJ to police the requirement."

. . . Directed that a copy of the CME Exemption Guidelines be sent to each County Medical Society.

Medical Defense and Insurance . . . Approved the following recommendation from the Committee on Medical Defense and Insurance concerning relationship of the loss control program and non-orthopedic surgeons performing orthopedic surgery:

That since the actual Loss Control Program does not show a major preponderance of losses due to orthopedic surgery being performed by non-orthopedic surgeons, the New Jersey Orthopedic Society should be asked to submit evidence on this issue.

Note: Part of the reason for the Medical Defense and Insurance Committee's decision not to pursue this matter further is that it is felt that further refinements would aggravate overall liability exposure.

Professional Liability . . . Approved the following recommendations from the Ad Hoc Committee on Professional Liability which resulted from that Committee's request to the Committee on Medical Defense and Insurance to study the feasibility of amending the current surcharge program so that it applied only to those instances where negligence has been established:

(a) That the surcharge program apply to those physicians who have two chargeable claims within a given five-year period.

(b) That percentages be eliminated in the surcharge program and fixed dollar amount across the board established for all classes — $2,500 for two cases; $5,000 for three cases; $10,000 for four cases — within a five-year period.

(c) That the "consent to settle" provision in the insurance contract be deleted during the time that the individual physician is subject to surcharge.

(d) That the surcharge program apply only to those cases resulting in deviations from accepted medical practice.

(e) That for a claim to be chargeable against a physician it must have an indemnity value of $5,000 or more for Classes 0, 1, 2, 6 and 7, and $10,000 or more for Classes 3, 4, and 5.

Improved Public Relations and Legislative Programs . . . Approved the following recommendations from the Executive Director, which evolved after consideration, with the chairmen of the Councils on Legislation and Public Relations, of the five-point program presented by Dr. Todd at the June 3, 1975 meeting of the Board (*JMSNJ* 72:674):

Passage or defeat of major bills—

That as soon as the bills are analyzed, copies will be forwarded to the Chairman of the Council on Legislation and the Chairman of the Board; only those bills they designate as meriting an active position will be placed on the

Council agenda for consideration; other bills brought to MSNJ's attention by component societies or specialty societies will also be placed on the agenda.

Drafting and introduction of progressive legislation—

That having achieved the above, the Council can then devote its time more productively to initiation of legislation: (1) on House of Delegates referrals; (2) on Board referrals; (3) on its own; and (4) on referrals from the Committee on Long Range Planning and Development, the Committee on Medical Defense and Insurance, and other in-house and related sources.

Keyman system—

That MSNJ should delegate this portion of the activity to the component societies. MSNJ should contact the county society and indicate which legislator should be educated or otherwise request massive coverage. This responsibility must, of necessity, fall upon the county executives, since they have the wherewithal to refer assignments and follow-up.

Further, each county should, in assigning contacts, make sure that "personal rapport" is present. No more than three M.D.s should be assigned to a given legislator. Small dinner and luncheon meetings can be a major vehicle for this approach.

Consideration of MSNJ position by legislators and administrative branch of government—

That Board activity and that of the Council should be directed toward Commissioners, Deputy Commissioners, Assistant Commissioners, and the six to eight legislative leaders in both houses. Personal rapport is the key. Social contacts should be utilized and no more than three M.D.s assigned per individual.

Campaign to insure coverage of major medical society activities—That this activity be a function of the staff.

Arthur Brisbane Child Treatment Center . . . Received as informative a communication from the Commissioner of Institutions and Agencies to the effect that the Brisbane Center is included in the overall budget recommendations for the next fiscal year and that it was not the intention or desire of that Department (I and A) to close the Center.

Immunization Against Swine-Related Influenza . . . Directed that the Council on Public Health be requested to consider immediately how MSNJ will implement the campaign in New Jersey to insure that every person who wishes to be immunized against swine-related influenza will be vaccinated.

Medical Director, MSNJ . . . Directed that the President appoint a committee to study the feasibility of establishing a position of Medical Director of MSNJ, including a job description, the function, and the salary of such a position.

Placement of Medical School Graduates . . . Directed that the Executive Staff investigate the facts, reflected in the Saturday, April 24, issue of the *Newark Star Ledger*, in the statement that to alleviate maldistribution of physicians throughout the State, upon graduation physicians will be placed (by the medical school) in designated areas where physician-population is low.

Occupational Lead Poisoning

The New Jersey State Department of Health is enlisting the help of physicians in reporting (to Mary Louise Brown, R.N., HEW Region II, 26 Federal Plaza, Federal Building, New York 10007) *any cases*, among workers exposed to lead poisoning, of the conditions here listed.

The Department recently has been informed by the National Institute for Occupational Safety and Health that EDTA and/or penicillamine is being used prophylactically to lower blood lead levels in workers in secondary smelters and battery plants rather than controlling lead exposure of the individual workers. Preliminary studies indicate that neurologic and metabolic defects occur despite lowered blood lead levels after chelation therapy, and that there are reported cases of chronic renal disease in workers exposed to lead who have been given chelating agents.

chronic renal disease
premature aging
symptomatic lead poisoning
prophylactic chelation therapy
increased blood lead levels
hematologic difficulties
neurological symptoms
congenital abnormalities
spontaneous abortion
sterility

Professional Liability*

Advantages of Early Claim Reporting

Early reporting of potential liability claims to the Britton Agency is the keystone to the MSNJ Loss Control Program. Unfortunately, early warning signs given by patients are overlooked or just not recognized. As a result, notification is withheld until formal action by patient's counsel is initiated many months later.

To a degree, this situation is understandable. The physician may believe the alleged injury is relatively minor; that it is not uncommon considering the type of procedure involved; or that the physician/patient relationship will preclude submission of any claim. This type of rationale is not valid. Likewise, fears that prompt reporting will produce a surcharge or otherwise affect insurability are unfounded. Failure to take prompt action compromises vigorous and effective defense and creates an adverse trend in loss control.

The following advantages accrue when a potential claim is promptly reported:

- The company is able to commence its investigation when the facts and circumstances relating to the treatment are readily available from the insured and other treating physician(s).

- All of the records pertaining to treatment are more readily accessible.

- Potential witnesses such as hospital employees, residents or other health care providers are still available with current recall of all of the facts. Initially, these individuals are less likely to take a defensive posture in an early investigation as contrasted to one being conducted subsequent to formal legal action in which they are named defendants.

- Laboratory studies, x-rays or other materials pertinent to the investigation are available for review and examination. Frequently, preservation of such evidence, is very desirable.

- The ability promptly to notify other health care providers, or suppliers of drugs and medical equipment of their possible involvement, as conditions warrant.

Perhaps a brief resume is in order regarding the manner in which a "potential claim or incident" is investigated. Our current data reveal approximately 30 percent of all matters reported to the company presently insuring the program fall into this category. The company recognizes that reporting itself does not mean an actual claim has been submitted and, in many instances, no formal file or reserve for loss is established. Initial contact is always with the insured physician and further investigation beyond this contact handled with discretion. It is not unusual for an investigation to be completed without contacting the patient, although there are occasions where this may be desirable. The company has reported a number of instances following submission of a formal claim, where their previously conducted in-depth investigation has enabled them promptly to deny liability. Such action has a deterrent effect upon the patient's legal counsel's interest in further persuit of the issue.

Recognition also must be given to the fact that there are occasions where the company's investigation reveals there is liability for the medical injury and damages incurred by the patient and that an active claim can be anticipated. Under these circumstances, prompt contact with the patient probably will be desirable to capitalize on the physician/patient relationship and to effect an expeditious and amicable disposition of the claim. Prompt response frequently can lead to a reasonable disposition of even the "most serious claim" and help sustain good relationships among the involved parties. To illustrate this point, the HEW's 1973 Report of the Secretary's Commission on Medical Malpractice revealed a $500 median payment, and no settlement in excess of $10,000, where "advance reports" were received relative to potential claims which proved to involve liability of physicians. While these figures are subject to change, considering current inflationary trends, this study does confirm

*This item has been prepared by Joseph A. Matt, CPCU, of the Joseph A. Britton Agency, in accordance with a request from the Special Session of the House of Delegates (12/14/75) — see *JMSNJ* 73:166 (February) 1976.

desirable settlements can be effected at a much lower final cost than if one waits for a formalized claim to be made. The experience of our present insurance carrier also supports these findings of the HEW commission.

Some advance indications easily are identifiable. Notice that an attorney has requested hospital records, or requests a report from a physician relative to his treatment or that of another doctor, is such an example. More difficult to interpret are signals from a patient reflecting an abrupt change in attitude. Careful follow-up into the root causes of such developments and their possible masking of a potential claim is advisable. These abrupt changes include, but are not limited to, discontinuing of scheduled treatments without cause, changing to a new physician without prior discussion, or refusing to pay for treatment.

It is interesting to note that a comparison of "potential" and "actual" claims reveals there is no difference in the alleged negligence involved in each. Primarily they both involve injuries arising out of alleged errors in properly diagnosing or treating a patient, or result from direct injury which occurred during treatment or surgery or was observed immediately subsequent thereto.

Perhaps the *most significant factor* generating professional liability claims today is the existence of *unexpected, and sometimes unexplainable, medical injuries* which result in disability, additional expense, and loss of income. There is a growing attitude today that "someone" should pay for these untoward results. As a further indication of this trend, claims also are made following medical injury where the patient previously has been advised fully regarding such potential problems; where the injury resulted from the patient's disregard of recommended treatment; or where the patient anticipated "optimum" results notwithstanding the fact that the practice of medicine is not an exact science. Hopefully these guidelines will provide better understanding of the benefits resulting from the early reporting of potential claims and also identify a few of the types of situations which are likely to develop into a claim or suit. If any doubt exists whether or not a "potential claim" should be reported, the soundest action is to "report immediately."

Therapeutic Drug Information Center*

The Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associated Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m. — telephone (212) 622-8989 or 636-7535. The following are questions and answers handled by the Center recently.

1. Do you have any information about the current status of drugs utilized systemically as male antifertility agents?

Several pharmacological approaches appear promising for the purpose of male contraception. Theoretically, inhibition of spermatogenesis by control of gonadotropins, alteration of sperm formation, interference with sperm maturation in the epididymis, interference with sperm transport in the vas deferens, or alteration of the seminal fluid, either alone or in combination are potential mechanisms of action for a systemic male contraceptive.[1]

Sperm counts as high as 20 million/ml. are thought to be consistent with infertility;[2] however, some investigators[3] suggest that absolute guarantees of infertility cannot be made unless consistently azoospermic semen specimens are found.

Mauss and Borsch[3] administered an intramuscular injection of 250 mg. testosterone enanthate (Delatestryl®) once a week for 21 weeks to seven healthy young males. Mean sperm counts were reduced from a pretreatment value of 73 million sperm/ml. to below 3 million sperm/ml. within nine weeks of testosterone administration and remained at this level for the entire treatment period. Mean semen volume, libido, potency, and secondary sex characteristics were unaffected. Not until 13 weeks post-treatment did sperm counts markedly increase to a mean sperm count of 63 million sperm/ml.; however, sperm counts in three males remained below pre-treatment values 25-28 weeks after cessation of testosterone. This makes predictions as to the reversibility of this treatment for a given patient difficult.

Brenner, *et al.*[4] utilized a progestin-androgen combination in an attempt to synergistically suppress spermatogenesis and maintain circulating testosterone at normal levels to

minimize unwanted effects expected if each agent were given individually. Four healthy male volunteers were instructed to take norethandrolone, 20 mg. orally for 90 days. In addition, on the first treatment day, either 3 or 4 polydimethyl siloxane capsules containing 20 mg. of testosterone (not commercially available) were subdermally placed in the forearm(s) of each volunteer. The authors found that 20 mg. of norethandrolone given orally each day was inadequate for inhibiting spermatogenesis. Although norethandrolone did suppress endogenous androgen levels, it had little effect on libido or potency and the testosterone administered was inadequate for maintaining normal circulating levels of testosterone. The four volunteers demonstrated considerable variations in their sperm counts during all phases of the study. None achieved azoospermia, although all subjects had a lowering of sperm counts sometime during the treatment period. All hormone levels returned to normal pretreatment values within three months of discontinuation of the medications.

Skoglund and Paulson[5] administered danazol (an analogue of ethinyl testosterone — under investigation by Sterling-Winthrop) to normal male volunteers using one of three treatment regimens: an 8-12 week control phase, a 12-16 week drug phase, and a variable recovery phase. Danazol 600 mg./day orally produced a modest reduction in sperm counts but danazol 600 mg./day orally plus testosterone propionate 10 mg. intramuscularly (Oreton® propionate) three times weekly, reduced sperm counts below 2 million/ml. in three of four men. Danazol 600 mg./day orally plus testosterone enanthate 200 mg. intramuscularly once monthly dropped sperm counts to less than 1 million/ml. in three of three men in 18 weeks. The authors suggested that the combination of danazol plus testosterone exerted its major action directly on the testis since danazol by itself reversibly inhibits steroidogenesis independent of its effect on gonadotropins. They also suggested that the addition of relatively small doses of testosterone propionate or enanthate enhanced the depressive effect of danazol upon spermatogenesis and removed the problem of impaired libido.

Various other methods are just being investigated including estrogen-androgen combinations, selective alpha adrenergic blockade, the use of 5-thio-D-glucose (a sugar that interferes with spermatogenesis by inhibition glucose transport across the cell membrane of maturing spermatazoa) and also post testicular antifertility agents related to alpha-chlorhydrin.[6]

In conclusion, several drugs are being investigated for systemic use as male contraceptives. Much more research is needed and none of these drugs appears to be near marketing.

References

1. Luy MLM: The male pill — Knotty problem or misogynist myth? *Mod Med* 43:42-46, 1975.

2. Holvey DN (ed.): *The Merck Manual,* 12th edition, Rahway, New Jersey, Merck Sharp and Dohme Research Laboratories, 1972, pp. 662-663.

3. Mauss J, *et al*: Investigations on the use of testosterone oenanthate as a male contraceptive agent, *Contraception* 10:281-289, 1974.

4. Brenner PF, *et al:* Administration of norethandrolone and testosterone as a contraceptive agent for men. *Contraception* 11:193-207, 1975.

5. Skoglund RD and Paulsen CA: Danazol-testosterone combination: A potentially effective means for reversible male contraception: A preliminary report. *Contraception* 7:357-365, 1973.

6. Paul R, *et al*: Structure-activity studies with chlorohydrins as orally active male antifertility agents. *Contraception* 9:451-457, 1974.

2. Please provide me with information concerning cimetidine in the treatment of peptic ulcer.

The physiological actions of histamine are mediated by at least two distinct classes of receptors: H_1 and H_2. Those receptors which respond to histamine can be blocked by conventional antihistaminic drugs and are referred to as H_1 receptors. Gastric acid secretion, stimulated by histamine and pentagastrin, can be inhibited by a new class of drugs referred to as H_2-receptor antagonists. The H_2-receptor antagonist most extensively studied in man has been metiamide, which has as part of its structure, a thiourea group. Thiourea-containing drugs are known to cause agranulocytosis, and, in fact, transient agranulocytosis developed in two patients receiving metiamide.[1] Therefore, another H_2-receptor antagonist, cimetidine, with a cyanoguanidine replacing the thiourea portion was synthesized. This agent is at least as equally effective as metiamide and has a longer duration of action.[2] At the present time, cimetidine is under investigation by Smith Kline and French Laboratories in the United States.

Henn, *et al.*[1] conducted a study in seven patients having duodenal ulcer with cimetidine. Oral doses of 100, 200, and 300 mg. of cimetidine or an optimal effective dose of propantheline bromide (Pro-Banthine®) were tested. Each dose of cimetidine significantly inhibited basal and meal-stimulated secretion. After 300 mg., basal acid secretion was essentially zero for at least five hours. The meal-stimulated three-hour acid output after the 300 mg. dose was reduced by 67 per cent. Cimetidine, 300 mg., decreased meal-stimulated acid secretion significantly more than an optimal effective dose of propantheline bromide. Inhibition of meal-stimulated gastric acid secretion showed a significant relation to peak blood cimetidine concentration. Cimetidine did not affect meal-stimulated gastrin release. No toxicity was observed after serial doses given during these tests. The authors concluded that cimetidine may be useful in the treatment of acid-peptic diseases provided no important toxicity appears on chronic testing.

Pounder, *et al.*[3] treated ten patients with benign gastric ulcer with cimetidine 0.8 or 1.6 gm. per day for six weeks. Relief of symptoms was rapid and endoscopy at the end of treatment showed that all the ulcers had healed. No untoward clinical or laboratory effects were reported.

Richardson and Fordtran[2] studied the effect of cimetidine on food-stimulated acid secretion in 3 duodenal ulcer patients. Oral doses of cimetidine (50 mg., 100 mg., 200 mg., 300 mg., and 400 mg.) were given immediately before meals and acid secretion was measured for three hours. The authors found that cimetidine given at the same time as a meal markedly inhibits food-stimulated acid secretion. Onset of action occurred during the first 30 minutes and maximal inhibition at 2 hours. The degree of inhibition was dose-related; with 400 mg., acid secretion was completely abolished during the period of maximum effectiveness and even with 50 mg. acid secretion was decreased by 62 percent.

In conclusion, cimetidine has been shown to be a competitive histamine H_2-receptor antagonist and an effective inhibitor of gastric secretion. Cimetidine may be useful in the treatment of acid-peptic diseases provided no important toxicity appears on long-term use.

References

1. Henn RH, *et al*: Inhibition of gastric acid secretion by cimetidine in patients with duodenal ulcer. *N Engl J Med* 293:371-375, 1975.

2. Richardson CT, *et al*: The effect of an H_2-receptor antagonist on food-stimulated acid secretion, serum gastrin, and gastric emptying in patients with duodenal ulcers: Comparison with an anticholinergic drug. *J of Clin Invest* 55:536-542, 1975.

3. Pounder RE, *et al*: Healing of gastric ulcer during treatment with cimetidine. *Lancet* 1:337-339, 1976.

3. Please supply information concerning the use of haloperidol for the treatment of choreiform movements.

Normal striatal function depends upon a balance in the influence of the cholinergic and dopaminergic systems. Alteration of one system, either in disease or by drugs, can alter the effects of the other system in the striatum. When the cholinergic influence is greater than the dopaminergic influence, Parkinson's disease occurs. When the dopaminergic influence is greater than the cholinergic influence, choreiform movements occur. Therefore, therapy of either condition should be directed toward restoring the balance between these two systems.[1] Parkinson's disease is often treated with levodopa (Dopar®, Larodopa®), which is converted to dopamine, and/or with anticholinergics which reduce the cholinergic influence. On the other hand, reports in the literature indicate that clinical improvement of choreiform movements sometimes occur following administration of drugs that deplete the brain of dopamine (such as reserpine[2]) or that fully block central dopamine receptor sites (such as haloperidol[2]) (Haldol®).[2, 3] Although the currently available dopamine depletors may be effective, dosage needs to be large, and significant adverse effects essentially prevent their use.[1]

The abnormal involuntary movements characterized as chorea occur in a variety of clinical syndromes including Huntington's chorea. Identical movements are also observed in tardive dyskinesia, Sydenham's chorea, hyperthyroid chorea, spontaneous lingual-facial-buccal dyskinesia of the elderly, the dyskinesia resulting from chronic levodopa therapy, and the choreiform syndromes seen during chronic abuse of amphetamines and similar agents.[4]

Kazamatsuri, *et al*[5] treated 7 of 13 patients suffering from tardive dyskinesia with haloperidol 8 mg. daily. At the end of the second week oral dyskinetic movements had completely disappeared in five out of seven patients and were reduced in the other two. By the end of the 12th week, all patients manifested some degree of oral dyskinesia, and thus at the start of the 15th week, the haloperidol dosage was increased to 16 mg. daily. Two weeks later, three patients showed considerable reduction in the frequency of oral dyskinesia, two patients developed severe malaise necessitating drug discontinuance, and two patients showed no improvement in oral dyskinesia. Replacement of haloperidol by a matched placebo in the 19th week resulted in rapid reappearance of oral dyskinesia to the pre-treatment level.

Siegel and Mones[6] treated a patient with generalized choreiform movements with haloperidol 0.5 mg. twice a day with gradual increments over a week until the level of 2 mg. three times a day was reached. At this dosage, there was a marked reduction in the frequency and amplitude of all the involuntary movements. After one week, therapy with haloperidol was abruptly discontinued and replaced by placebo. By the sixth day of placebo therapy, the severity of the choreiform movements equaled the pre-treatment level. Haloperidol therapy was resumed, and the patient was quickly stabilized on 2 mg. three times a day. At examination, after four and seven months, the patient continued to be relatively stable.

In conclusion, pharmacologically, haloperidol should be effective for the treatment of dyskinesias, but relatively few clinical studies have confirmed this. Other authors[7, 8, 9] have implicated haloperidol in the production of these movements. Therefore, additional controlled studies will have to be performed before this therapy can be recommended.

References

1. Michalko KJ: Serum sodium concentration. *Hosp Pharm* 11:72-74, 1976.

2. Weiner WJ and Klawans Jr HL: Lingual-facial-buccal movements in the elderly: I. Pathophysiology and treatment, *J Am Geriatr Soc* 21:314-317, 1973.

3. Moskowitz MA and Wurtman RJ: Catecholamines and neurologic diseases: Part 2. *N Engl J Med* 293:332-338, 1975.

4. Klawans HL and Weiner WJ: The effect of D-amphetamine on choreiform movement disorders. *Neurol* 24:312-318, 1974.

5. Kazamatsuri H, *et al:* Long-term treatment of tardive dyskinesia with haloperidol and tetrabenazine. *Am J Psychiatry* 130:479-483, 1973.

6. Siegel GJ and Mones RJ: Modification of choreiform activity by haloperidol. *JAMA* 216:675-676, 1971.

7. Jacobson G, *et al*: Tardive and withdrawal dyskinesia associated with haloperidol. *Am J Psychiatry* 131:910-913, 1974.

8. Moline RA: Atypical tardive dyskinesia. *Am J Psychiatry* 132:534-535, 1975.

9. Hall MS: Reversible dyskinesia caused by haloperidol. *Am J Psychiatry* 131:1413, 1974.

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CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Training allied-health professionals is increasingly important to the College of Medicine and Dentistry of New Jersey (CMDNJ), if it is to fulfill its mission of enhancing the delivery of health care to the people of the state. CMDNJ's Board of Trustees has already approved creation of a formal School of Allied Health Professions, and application will be made soon to the New Jersey Board of Higher Education for authority to proceed.

Recognition is given of the fact that CMDNJ is not the only institution in the state with an allied health education capability. The others, of course, are both two-year and four-year colleges. But as the State's single medical-dental clinical education resource, CMDNJ is in a unique position to cooperate with those institutions and to coordinate efforts, as well as to develop new programs of its own.

Planning and fitting the separate health disciplines into a logical, educational, and practical pattern of joint effort, geared to the State's health needs, will generate challenging and rewarding careers for allied-health students. There is a key role here for physicians and dentists in defining what types of allied-health personnel are needed, and what skills and training they must have. The College, then, would serve as the conduit; on the one hand collecting information from the field for the benefit of students and would-be students, and on the other advising physicians and dentists what skills are available to them in their practice.

Health care is being viewed increasingly as a shared responsibility among practicing health professions, with the allied health professional assuming a greater role in this sharing. A CMDNJ-School of Allied Health Professions would approach the various allied health disciplines as applied sciences, with all the scientific rigor the concept implies.

As a formal school, the course offerings would be divided into five academic areas:

1. A Department of Dental Auxiliary Education, offering an associate degree program for dental hygienists and a certificate program for dental assistants.

2. A Department of Clinical Laboratory Sciences, offering a baccalaureate degree for medical technologists and a certificate program for cytotechnologists. (An associate degree program in medical laboratory technology, in conjunction with community colleges, is currently under consideration.)

3. A Department of Health Care Services, offering a baccalaureate program for assistants to primary care physicians in conjunction with Livingston College of Rutgers University; a certificate program in nurse-midwifery; an emergency medical technician program, conducted jointly with Essex County College; and a respiratory therapy technician program.

4. A Department of Clinical Nutrition and Dietetics. There is currently a certificate dietetic internship program in CMDNJ's Martland Hospital. A program, which would lead to an M.S. in clinical nutrition, is being considered in conjunction with the CMDNJ-Graduate School of Biomedical Sciences.

5. A Department of Radiation Sciences. There is currently a certificate program in this field at Martland Hospital. A baccalaureate program, to be jointly conducted with Kean College and the East Orange Veterans Administration Hospital, is under review by the New Jersey Board of Higher Education.

Where We Stand

Where We Stand, a pamphlet delineating MSNJ's official position on medical and health issues, is available upon request from the Public Relations Office, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

To help your patients understand what you already know!

You know that aspirin is a standard for analgesic effectiveness. You know how efficient it is as an antipyretic. And you know that it is basic starting therapy in inflammatory conditions such as rheumatoid arthritis.

But unfortunately, many of your patients don't.

And some may not be happy until they walk out of your office with a prescription for a more exotic, more expensive...and, sometimes, less effective drug.

That's why a new booklet has been prepared for your patients entitled, "What your doctor wants you to know about aspirin." Its basic purpose is to help skeptical patients understand that aspirin is a real drug with many proven therapeutic applications...and that you are recommending aspirin for them not because you're taking their problem lightly, but because aspirin is the best drug for their condition. The booklet also emphasizes that even though aspirin is sold without a prescription, like all medications it is to be used with care. Suggestions for optimal administration are offered—to help increase efficacy and minimize adverse effect.

Moertel and his associates* have suggested that "...if aspirin is recommended with the strong endorsement of the physician, it is acceptable to even the most sophisticated patient."

We hope this booklet will help you offer such an endorsement to your patients and supplement your specific instructions when aspirin therapy is indicated.

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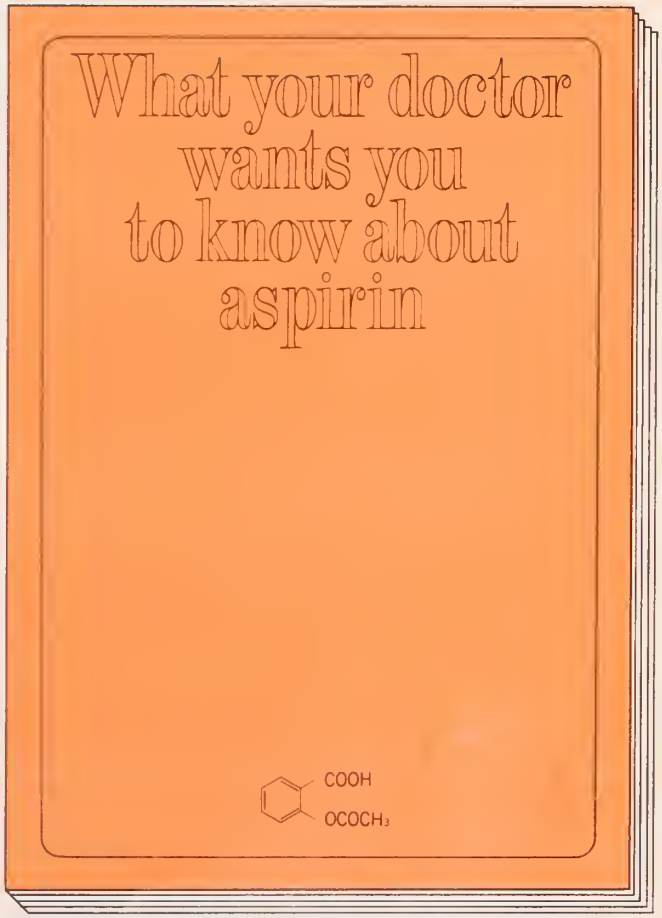
*Moertel, C.G., et al: N. Engl. J. Med. *286*:813 (Apr. 13) 1972.



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Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

The Federal Register of March 25 announced the intention of HEW to designate additional Conditional PSROs. Of the 16 selected, two are in Region II (New York, New Jersey, Puerto Rico, and Virgin Islands). Both of these are in New Jersey! We salute these PSROs, which are:

Area 1 PSRO, Region II (Morris, Sussex, Warren)
Donald P. Burt, M.D., President
Alden Hall, M.D., Vice-President
Lawrence Floriani, M.D., Secretary
Arthur Ginsburg, M.D., Treasurer
Frank Mahoney, Executive Director

Essex Physicians' Review Organization
Arthur Bernstein, M.D., President
George L. Benz, M.D., Vice-President
A. E. Bythewood, M.D., Secretary
John A. Ferrara, D.O., Treasurer
B. Marc Allen, Executive Director

Our congratulations are extended to all of the personnel who have devoted their time and efforts to attaining this goal.

With Passaic Valley already in place, there will soon be three Conditional PSROs operating in the State. New Jersey will then be eligible for a State Professional Standards Review Council, with which the Foundation plans to be affiliated. The Foundation was informed on March 30 that we will continue to be funded as a statewide Support Center through the end of September 1977. We are naturally gratified at this expression of confidence in our organization.

For the rest of the areas, HEW expects to convert all existing Planning PSROs (including Central New Jersey and Southern New Jersey) as soon as they become qualified. No *new* Planning PSROs will be funded until October 1, 1976. This includes the remaining areas, Bergen, Hudson, and Union. The present timetable is for all 203 areas in the country to be doing review by the end of fiscal year 1978.

New Jersey thus is in good shape. The fruits of the labors of many people are beginning to appear. The Foundation, of course, is continuing its efforts in directions other than PSRO — Individual Physicians' Organizations (IPA), HSA, private carrier relationships, and other areas where the practicing physician should be represented by this peer group.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY — J. W. Chen, M.D., 25 Springfield Avenue, Hasbrouck Heights 07604. Taipei (Taiwan) 1970. Board eligible. Group, partnership, solo, or hospital. Available July 1976.

Sami Emel Basaranlar, M.D., 30 Hasbrouck Road, Staten Island, New York 10304. University of Istanbul (Turkey). Group, partnership, solo. Available.

Sumedha V. Kulkarni, M.D., 318 East 15th Street, New York 10003. Poona (India) 1964. Board eligible. Group, partnership, or hospital. Available July 1976.

CARDIOLOGY — Samuel P. Kumar, M.D., 4729 Hickory Place, Cheyenne, Wyoming 82001. Osmania Medical College (India). Subspecialty, internal medicine. Board certified. Group. Available July 1976.

FAMILY PRACTICE — Robert J. Baird, M.D., 2702 Fruitville Pike, Lancaster, Pennsylvania 17601. Temple 1973. Group or partnership, semi-rural, central New Jersey preferred. Available August 1976.

M. B. S. DeSilva, M.D., 25 West Wellsboro Street, Mansfield, Pennsylvania 16933. Medical College, Colombo (Ceylon) 1966. Board certified. Group or full-time emergency room. Available July 1976.

INTERNAL MEDICINE — Stephen R. Shapiro, M.D., 3151 Lake Forest Drive, Apt. 69, Augusta, Georgia 30904. Chicago Medical School 1969. Subspecialty, gastroenterology. Board eligible. Group, partnership, or solo. Available July 1976.

Nabil Attaya, M.D., 5736A Thorndale Lane, Richmond, Virginia 23225. Alexandria (Egypt) 1965. Subspecialty, cardiology. Board certified. Group, partnership, or solo. Available July 1976.

Hari K. R. Bhasin, M.D., 1145½ Hartford Avenue, Apt. 1C, Johnston, Rhode Island 02919. All-India Institute of Medical Sciences, 1966. Subspecialty, nephrology. Board eligible. Hospital, group, or solo. Available July 1976.

Nancy S. Scher, M.D., 142 East 16th Street, Apt. 6-A, New York 10003. Pennsylvania 1971. Board certified (IM). Subspecialty, hematology. Group, preferably southern New Jersey. Available July 1976.

Sinlaratana Pairojana, M.D., 300 Community Drive, Apt. 4-1B, Manhasset, Long Island, New York 11030. Siriraj, Bangkok (Thailand) 1966. Board certified. Subspecialty, hematology. Group or partnership (hospital based). Available July 1976.

Ashok Kumar, M.D., 345 Bronx River Road, Apt. 7-C, Yonkers, New York 10704. SMS Medical (Jaipur, India) 1967. Board certified. Group, partnership, or solo. Available July 1976.

Sanjeeb K. Mishra, M.D., 6531 Landover Rd., Apt. 301, Cheverly, Maryland 20785. A.F. Medical (Poona, India) 1970. Subspecialty, nephrology. Board certified. Hospital-based or group. Available July 1976.

OBSTETRICS AND GYNECOLOGY — Jiunn-Bor Hwang, M.D., 3990 Bronx Boulevard, Apt. 6-J, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Group, partnership, solo. Available July 1976.

Florencia C. Lopez, M.D., 355 Bard Avenue, Apt. LC, Staten Island, New York 10310. Santo Tomas (Philippines) 1960. Board eligible. Group, partnership, solo. Available July 1976.

Judith A. Stavis, M.D., 315 Eighth Street, Palisades Park 07650. Cornell 1972. Board eligible. Group, clinic. Available July 1976.

Hoon Yoo, M.D., 950 49th Street, Apt. 1-A, Brooklyn, New York 11219. Catholic Medical School, Korea. Board eligible. Solo, partnership, group, or hospital. Available July 1976.

Stanley Wilson Yang, M.D., 675 East 233rd Street, Bronx, New York 10466. Rangoon University Medical School (Burma) 1969. Board eligible. Group, partnership, solo. Available July 1976.

Wu-Jan Lin, M.D., 67-50 Thornton Place, Apt. 1K, Forest Hills, New York 11375. Taipei (Taiwan) 1970. Board eligible. Solo, partnership, group. Available July 1976.

Narendra D. Karmali, M.D., 753 Classon Avenue, Apt. 2-D, Brooklyn, New York 11238. T. N. Medical (Bombay, India) 1970. Board eligible. Group, partnership. Available July 1976.

ONCOLOGY — Abdul G. Mundia, M.D., 73-17 260th Street, Glen Oaks, New York 11004. L.T. Medical, Bombay (India) 1970. Board eligible. Solo, group, or hospital based. Available July 1976.

PATHOLOGY — Raafat Ahmad, M.D., 1017 Lafayette Drive, Yardley, Pennsylvania 19067. F.J. Medical (Pakistan) 1964. Board certified. Group, partnership, or hospital-based. Available July 1976.

Thomas J. Joseph, M.D., 46 Brighton Drive, Gaithersburg, Maryland 20760. Temple 1970. Board certified. Group or partnership. Available May 1977.

PEDIATRICS — Jaw-Tang Chen, M.D., 3990 Bronx Boulevard, Apt. LK, Bronx, New York 10466. Taipei (Taiwan) 1967. Board eligible. Solo, partnership, or group. Available.

Michael Z. Blumberg, M.D., 701 North Lincoln Street, O'Fallon, Illinois 62269. Jefferson 1971. Subspecialty, allergy. Board certified. Group or partnership. Available July 1977.

REHABILITATION MEDICINE — Jau-Shiung Huang, M.D., 37-16 83rd Street, Apt. 2G, New York 11372. Kaohsiung (Taiwan) 1967. Board eligible. Hospital. Available Janaury 1977.

PSYCHIATRY — Reza Feiz, M.D., 1199 Whitney Avenue, Apt. 310, Hamden, Connecticut 06517. Isfahan (Iran) 1967. Full or part-time. Available July 1976.

SURGERY — Anuershetru Siddanna, M.D., 173 Pleasant Street, Melrose, Massachusetts 02176. Karanatak Medical School (India) 1965. Board eligible. Group, partnership, salaried position, others. Available May 1976.

Vicente P. Grana, M.D., 2430-C 8th Street, Fort Lee 07024. Far Eastern (Manila) 1966. Board eligible. Subspecialty thoracic surgery. Solo, partnership, group. Available July 1976.

Vijaykumar Kulkarni, M.D., 318 East 15th Street, New York 10003. Poona (India) 1965. Board eligible. Group, partnership, or solo. Available July 1976.

UROLOGY — P. Satpathy, M.D., 6529 Landover Road, Apt. 303, Cheverly, Maryland 20785. 1965. Board eligible. Solo, if possible. Available July 1976.

Edward Salmon, M.D. 4343 Graham Drive, Pierrefonds, Quebec H9H2B9, Canada. University of Kentucky, 1969. Board eligible. Group, partnership, or solo. Available July 1976.

Medical Reports for Disability Claims

Recently enacted Assembly Bill #95 (P.L. 1975, C.297, approved January 30, 1976), which states that no physician and no professional service corporation engaged in the practice of medicine and surgery in this State shall charge a patient an extra fee for services rendered in completing a medical claim form in connection with a health insurance policy, does *not* relate to medical reports for disability claims, applied for under the Division of Disability Determinations. *The Division of Disability Determinations is not a health insurance,* and requests for medical reports to support an applicant's claim for disability filed with that agency are not considered applications for health insurance policies; therefore, they are not covered by the law prohibiting charge of fee.

Mildred C. Tarchiani

Mildred C. Tarchiani, the new President of the Society's Auxiliary, served the Passaic County Auxiliary unit as chairman of many committees and as its president. At the State level she was chairman of the Medical Student Loan Fund and held membership on numerous other committees.

Twice widowed, Mrs. Tarchiani was married in 1941 to T. Vincent Connolly, a specialist in otorhinopharyngology, whose untimely death occurred just two years later. In 1948, she married Lucius S. Tarchiani, a general practitioner, who died in 1972.

Mrs. Tarchiani studied and taught ballet dancing for twenty years and conducted her own school of ballet in Paterson. Community activities included the presidency of the Paterson Parent and Teachers Association, Paterson Park Board, Passaic County Homemaker Service, and the New Jersey Homemaker-Home Health Aide Association. She has also served the boards of the Passaic County and New Jersey Easter Seal Societies and the auxiliary of St. Joseph's Hospital.

Mrs. Tarchiani's hobbies include travel, dance, piano, and embroidery. She has a daughter, Linda P. Connolly, who is a flight attendant for Eastern Air Lines.

National Cooperative Gallstone Study

The Hospital of the University of Pennsylvania Treatment Center of the National Cooperative Gallstone Study is now enrolling patients. In brief, the study is designed to test the safety and efficacy of chenodeoxycholic acid in dissolving cholesterol gallstones and to establish the natural history of gallstone disease. Patients, who are referred by their physicians, will be evaluated at the various treatment centers and then if eligible, randomly assigned to either medication or placebo. Patients will be on the medication for two years. After the first three months, when monthly visits are required, patients will be seen every three months for follow-up.

The criteria for admission are (1) the presence of radiolucent gallstones in a functioning gallbladder and (2) the patient is either female (postmenopausal or post-hysterectomy) or male — between 21 and 70 years of age. Exclusion criteria include excessive obesity (200 percent of ideal body weight), liver disease, inflammatory bowel disease, severe heart disease, or malignancy.

The ten treatment centers are distributed across the country. The centers closest to the Hospital of the University of Pennsylvania are in New York to the north, North Carolina to the south, and Minnesota to the west. Patients can be referred for evaluation by calling 215-662-3542, or writing to the Gallstone Study, 570 Maloney Building, Hospital of the University of Pennsylvania, 3600 Spruce Street, Philadelphia, Pennsylvania 19104.

ANNOUNCEMENTS

Camp for Diabetic Children

Camp Nejeda, owned and operated by the Camp Nejeda Foundation, under the sponsorship of the American Diabetes Association, New Jersey Affiliate, provides an educational camping experience for children with diabetes. Campers — aged 5 to 15 — are accepted regardless of ethnic, religious, or financial background.

The campsite is in Stillwater, New Jersey, on a 70-acre tract surrounding a spring-fed 13-acre lake. Facilities, in addition to the lake and rolling wooded countryside, include a handsome multi-purpose new lodge, large arts and crafts center, modern health center continuously and fully staffed professionally, 9 new cabins, 9 rustic cabins, a swimming pool, baseball diamond, basketball court, volley ball court, archery range, canoes, rowboats, and kayaks.

Last season, there were 140 campers. Of these, 30 percent were unable to pay any fee whatsoever. The operating budget was in the range of $60,000, with camp tuitions supplying approximately one-third of this amount. The deficit (about $40,000) must be met with *outside* help. Donations, of course, are fully tax deductible.

Weekly fees this year will be $110 but no child from New Jersey will be denied admission on the basis of insufficient funds. Three sessions will be offered — July 4 to 24 (3 weeks); July 25 to August 7 (2 weeks); and August 8 to 28 (3 weeks). Inquiries may be directed to Mrs. Wm. Levison, Executive Director, Camp Nejeda Foundation, 153 Roseville Avenue, Newark 07107 — (201) 483-1122.

Bermuda Hosts Graduate Course in Radiology

The Department of Radiology, Duke University Medical Center, is sponsoring a five-day graduate course in radiology, to be held from October 25 to 29 at the Southampton Princess Hotel in Bermuda. The scientific program will be held from 8 a.m. to 1 p.m. each day, with a disease-oriented format covering pediatric and adult radiology and nuclear medicine of the chest, genitourinary tract, gastrointestinal tract, and skeletal system. Faculty from Duke University will include Drs. Herman Grossman, I. S. Johnsrude, Robert McLelland, and R. A. Older. Those scheduled as guest faculty are: Chest — R. E. Heitzman, M.D., Syracuse; Gastrointestinal — R. E. Miller, M.D., Indianapolis; Genitourinary — J. A. Evans, M.D., New York; Nuclear Medicine — Alexander Gottschalk, M.D., New Haven; Pediatric Radiology — J.S. Dunbar, M.D., Cincinnati; and Skeletal System — E. G. Theros, M.D., Washington. Twenty-five (25) hours of credit in AMA Category I will be awarded to those in attendance. Inquiries may be directed to R. McLelland, M.D., Radiology — Box 3808, Duke University Medical Center, Durham, North Carolina 27710 — (919) 684-4397.

Graduate Courses for Pediatricians and Obstetricians

The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces graduate programs for obstetricians and pediatricians in the field of maternal and child health and in family planning. Nine-month programs are available in maternal and child health, in health of the school-age child and youth, and in day care and the preschool child. Twenty-one month programs are offered in care of the handicapped child and in comprehensive health care, and there is also a thirty-three month program in perinatology. All programs lead to a master's degree in public health and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering in September, 1977. For information, please write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

LETTERS TO THE JOURNAL

Re: "One Snake or Two?"

April 12, 1976

Dear Doctor Krosnick:

Perhaps your readers will be interested to know that in my native Greece, land of both Asklēpios (Aesculapius) and Hermes (Mercury), the one-snaked staff is the sign of medical services, whereas the two-snaked caduceus (known there as "kērykeion" ("herald's wand") is the sign of commerce, surmounted, sometimes, by the winged cap of Hermes.

(signed) Constantine H. Makris, M.D.

A Great Master

April 28, 1976

Dear Editor:

In a dilapidated, small hospital in Brooklyn, called the Lutheran Medical Center, a renowned physician still conducts medical teaching rounds. Dr. William Dock, former Professor of Pathology at Stanford and at Cornell, and former Professor of Medicine at Long Island College of Medicine (now State University College of Medicine), is still quite active. Because he is 77 years of age, he apparently has been retired by the Medical School and the Veterans Administration.

For those medical students, residents, and practicing physicians who wish to see Dr. Dock in action, grand rounds can be witnessed Tuesdays from 10 a.m. to noon. Dr. Dock's vision has faltered somewhat but his step is brisk and the mind is alert and decisive. Being an electronics expert, music and art critic, a linguist, and an authority on mountain flowers and mountain climbing, expert medical advice is interspersed with quotes from Shakespeare and George Bernard Shaw. Although the residents are foreign-trained, their eyes portray a love and devotion reserved only for a great teacher. A jacket and tie are required. (Be prepared to climb stairs as Dr. Dock still does not believe in taking the time for elevators to arrive.)

If you are depressed with hospital politics, malpractice problems, arguments with Medicare, Medicaid, Blue Shield, and the humdrum of every-day practice, you can expect an unparalleled intellectual uplift by observing one of the last of the great masters.

(signed) Murray Strober, M.D.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s).

June

— **General Surgery Continuing Education**
3 p.m. (every Monday, Thursday, Friday) — Atlantic City Hospital
(Sponsored by Atlantic City Hospital)

— **Family Practice Conferences**
12 noon — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center and AAFP)

11, 18, 25 **Medical Lecture Series**
1-3:30 p.m. — Greystone Park Psychiatric Hospital
(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)

11 **Gastroenterology**
1:30-4:30 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

12 **Antibiotics and Surgical Infection**
10-11 a.m. — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

12, 19, 26 **Advances in Orthopedic Surgery**
8:30-11:30 a.m. — CMDNJ, New Jersey Medical School, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

14 **Endocrine Conferences**
21 11 a.m. — Elizabeth General Hospital, Elizabeth
28 *(Sponsored by Elizabeth General Hospital and AAFP)*

15 **Joint Neurological-Neurosurgical Conferences**
11:30 a.m. — Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and Academy of Medicine)

15 **Radiology of Genitourinary Disease**
7-9:30 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

15 **Infertility**
11:30 a.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

15 **Common Medical Problems**
8 a.m. — Southern Ocean County Hospital, Manahawkin
(Sponsored by Burlington County Memorial Hospital and AAFP)

15 **Hyperlipidemia**
5:30-6:30 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

15 **Medical Lecture Series**
17 11 a.m.-12 noon — Greystone Park Psychiatric
22 Hospital
29 *(Sponsored by Greystone Park Psychiatric Hospital and Academy of Medicine)*

15 **Topics in Neurosurgery**
22 4-5 p.m. — VA Hospital, East Orange
29 *(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)*

15 **Psychiatric Case Conferences**
22 7:30-9:30 a.m. — Trenton Psychiatric Hospital
29 *(Sponsored by Trenton Psychiatric Hospital and Academy of Medicine)*

15 **Tumor Conferences**
22 11 a.m.-12 noon — Morristown Memorial Hospital
29 *(Sponsored by Morristown Memorial Hospital and Academy of Medicine)*

16 **Occlusive Vascular Disease**
5-8:30 p.m. — Hunterdon Medical Center, Flemington
(Sponsored by Hunterdon Medical Center, AAFP, and Academy of Medicine)

16 **Pediatric Guest Lectures**
6:30 p.m. — St. Francis Medical Center, Trenton
(Sponsored by St. Francis Medical Center and AAFP)

16 **Cardiology Conferences**
4-5:30 p.m. — CMDNJ, Rutgers Medical School
(Sponsored by CMDNJ-Rutgers Medical School and Academy of Medicine)

16 **Update on Psychotropic Drugs**
3-4:30 p.m. — Fair Oaks Hospital, Summit
(Sponsored by Fair Oaks Hospital and Academy of Medicine)

16 **Laboratory Interpretations**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

16 **Special Problems in Neurology**
7 p.m. — VA Hospital, East Orange
(Sponsored by CMDNJ-New Jersey Medical School, VA Hospital, and Academy of Medicine)

17 **Postgraduate Symposia in Surgery**
West Jersey Hospital, Voorhees
(Sponsored by West Jersey Hospital, University of Pennsylvania School of Medicine and AAFP)

17 **Neurological Exam for Psychiatrists and Internists**
24 **Quality Assurance in Psychiatric Hospitals**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

17 **Topics in Oncology**
24 1:30-2:30 p.m. — Martland Medical Unit, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

18 **Orthopedic Problems**
12 noon — Freehold Area Hospital
(Sponsored by Freehold Area Hospital and Academy of Medicine)

18 **Photographic Panorama of Pediatric Problems**
12 noon — Monmouth Medical Center, Long Branch
(Sponsored by Monmouth Medical Center and AAFP)

18 **Laboratory Approach to Thyroid Disease**
Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and AAFP)

18 **Transactional Analysis and Gestalt Therapy**
19 9 a.m.-5:30 p.m. — Ramada Inn, Fairfield
20 *(Sponsored by Kenneth Hall, M.D., and Academy of Medicine)*

21 **Medical Lecture Series**
12 noon — Montclair Community Hospital
(Sponsored by Montclair Community Hospital)

22 **Perinatology and Neonatology Seminar**
7 p.m. — Somerset Hospital, Somerville
(Sponsored by Children's Hospital, United Hospitals of Newark, and Academy of Medicine)

22 **Management of Hypertension**
8 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

23-25 **Emergency Medicine Conferences**
9 a.m.-4 p.m. — Martland Hospital, Newark
(Sponsored by CMDNJ-New Jersey Medical School and Academy of Medicine)

23 **Causalgia**
1 p.m. — Christ Hospital, Jersey City
(Sponsored by Christ Hospital and AAFP)

23 **Visiting Lectures in Ophthalmology**
8-10 p.m. — Paul Kimball Hospital, Lakewood
(Sponsored by Paul Kimball Hospital and Academy of Medicine)

23 **Tape Recorder in Psychiatric Rehabilitation**
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital and Academy of Medicine)

28 **Thyroid Carcinoma**
Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and AAFP)

29 **Ophthalmology in General Practice**
Pascack Valley Hospital, Westwood
(Sponsored by Pascack Valley Hospital and AAFP)

30 **Ischemia of the Lower Extremities**
1-2 p.m. — VA Hospital, Lyons
(Sponsored by VA Hospital and Academy of Medicine)

July

1 **Pulmonary Embolism, Part I**
8 **Pulmonary Embolism, Part II**
15 **Electrocardiogram of the Middle-Aged**
22 **The Modern Medical School and Patient Care**
29 **Child Abuse**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

23 **Seminar in Transactional Analysis and Gestalt Therapy**
24 9 a.m.-5:30 p.m. — Ramada Inn, Fairfield
25 *(Sponsored by Kenneth Hall, M.D., and Academy of Medicine)*

27 **Thyroid Today**
8-9 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

Aug.

3 **Lecture Series**
11 a.m. — Overlook Hospital, Summit
(Sponsored by Overlook Hospital and AAFP)

5 **Therapy of Sexual Disorders**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

12 **Marital Therapy**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

25 **Emergency Medical Procedures**
26 Martland Medical Center, Newark
27 *(Sponsored by CMDNJ — New Jersey Medical School)*

Sept.

9 **Neurological Causes for Violent Behavior**
12 noon — Carrier Clinic, Belle Mead
(Sponsored by Carrier Clinic)

10 **Indications for Gastroenterological Endoscopy**
12 noon-1 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

21 **Transfusion Therapy**
5:30-6:30 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

29 **Pitfalls in Emergency Medical Care**
9-5 p.m. — Holiday Inn of New Brunswick, North Brunswick
(Sponsored by Inter-Agency Commission on Emergency Medical Care and Academy of Medicine)

Oct.

13 **Post-Partum Psychosis and Depression**
7:45-10 p.m. — 111 Ridgewood Avenue, Glen Ridge
(Sponsored by Journal Club of Greater Newark and Academy of Medicine)

26 **Oncology and Hematology**
8-9 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

Nov.

23 **Cardiac Complications of Antidepressants and Tranquilizers**
8-9 p.m. — Warren Hospital, Phillipsburg
(Sponsored by Warren Hospital and Academy of Medicine)

Dec.

3 **Melanoma and Recent Immunologic Advances**
12 noon-1 p.m. — St. Mary's Hospital, Orange
(Sponsored by St. Mary's Hospital and Academy of Medicine)

The Burn Foundation of Greater Delaware Valley

The Burn Foundation of Greater Delaware Valley received almost 30 percent of its patients from New Jersey since its inception in November, 1973 through June, 1975. The Foundation, which has treatment centers at St. Agnes Hospital, Philadelphia, and Crozier-Chester Medical Center, Chester, Pennsylvania, reported a total of 343 admissions during the twenty-month period.

An evaluation by community of origin indicated that 45 patients were sent from southern New Jersey while 40 and 16 patients were referred from the central and northern parts of the state respectively. Fifty percent of the patients treated by the Foundation were in the work-age (21-64 years) while a third were under the age of 20.

OBITUARIES

Dr. Louis S. Borow

On March 30 Louis S. Borow, M.D., a senior member of our Somerset County component, died at his home after a prolonged illness. Born at the turn of the century, Dr. Borow was graduated from the University of Louisville (Kentucky) Medical School in 1926, and practiced general medicine for a period before pursuing a career in radiology and clinical pathology. He was board certified in both specialties and had been on the staffs of the Bound Brook, Middlesex General, and Raritan Valley Hospitals, and was associated with the Gertrude Lebow Memorial Laboratory in Bound Brook. Dr. Borow was a member of the Radiological Society of North America, the Radiological Society of New Jersey, and the International Cancer Society.

Dr. Charles F. Church

On April 3, Charles F. Church, M.D., well known in Middlesex County for his contribution in the field of nutrition, died in New Seabury, Massachusetts, where he had moved following retirement in June 1974. A native of Montana, born in 1902, Dr. Church was graduated from Harvard School of Medicine, class of 1931, and came to New Jersey in 1942 to practice endocrinology. He had held fellowships in nutrition research at the University of Pennsylvania and the University of Michigan, and was a research specialist and chairman of the radioisotope committee at Rutgers University. He had been on the staff at Middlesex General and St. Peter's Hospitals in New Brunswick and the Roosevelt Hospital in Metuchen. Dr. Church was a Fellow of the American Society of Clinical Nutrition, and a member of the American Diabetes Association and the American Geriatrics Society.

Dr. Alfred J. D'Agostini

One of Essex County's well-known orthopedic surgeons, Alfred J. D'Agostini, M.D., died suddenly at St. Michael's Hospital, Newark, following the rupture of an abdominal aortic aneurysm. A graduate of Georgetown University School of Medicine, class of 1930, Dr. D'Agostini went on to seek graduate work in orthopedic surgery. He was a Fellow of the American College of Surgeons and had been chief of the orthopedic services at St. Michael's and Crippled Children's Hospitals in Newark and on the staff at Flower Fifth Avenue Hospital in New York. He was a member of the faculty at New York Medical College and New Jersey Medical School, CMDNJ. Dr. D'Agostini was 68 years old at the time of his death.

Dr. Emanuel Glaser

We have just learned of the death on February 11, at St. Elizabeth Hospital, Elizabeth, of Emanuel Glaser, M.D., following a cerebral vascular accident. A native of New York City, Dr. Glaser was graduated from Bellevue Medical School, class of 1921, and early in his career came to Union County to practice internal medicine in Elizabeth. He had been on the staffs at St. Elizabeth and Alexian Brothers Hospitals in Elizabeth. Dr. Glaser, who was 78 years old at the time of his death, had retired to Rossmoor in Jamesburg several years ago.

Dr. Thomas J. Green

Thomas J. Green, M.D., an Ocean County internist, who practiced in New Egypt for many years before retiring to Leesburg, Florida in 1972, died on March 7. Born in 1908 and graduated from Georgetown University Medical School in 1932, Dr. Green had special interest in the field of cardiology and had been on the staff in the department of thoracic medicine at St. Francis Medical Center in Trenton. He was a member of the New Jersey and American Heart Associations.

Dr. S. Lewis Kook

At the untimely age of 53, S. Lewis Kook, M.D., the President of the Kearny Board of Health, died at West Hudson Hospital on April 11. A native of Jersey City, Dr. Kook received his medical degree from Tulane University in 1946

and returned to Hudson County to practice general medicine, first in Arlington and more recently in Kearny. He was on the staff at the West Hudson Hospital, and in addition to his association with the Board of Health, which extended over twenty years, he was the team physician for the Kearny High School football team for nearly as long a period. Dr. Kook was a member of the American Academy of Family Practice, the American Geriatrics Society, and the Academy of Medicine of New Jersey.

Dr. Louis Markowitz

One of Passaic County's senior members, Louis Markowitz, M.D., died on March 25 in Santa Fe, New Mexico, where he had retired. A graduate of Bellevue Medical College in 1924, Dr. Markowitz went on to complete graduate work in ophthalmology at the University of Vienna. He returned to New Jersey and engaged in the practice of that specialty in Paterson for many years. He was attending ophthalmologist at Barnert Memorial Hospital and served as vice-president and then president of the medical board and chairman of the executive committee in the 1950's. He was a Fellow of the American College of Surgeons and was certified by the American Board of Ophthalmology. Dr. Markowitz was 77 years old at the time of his death.

Dr. John J. McGuire

The Medical Society of New Jersey suffered a grievous loss with the sudden death of its President, John Joseph McGuire, M.D., at his home on May 3, the victim of an apparent heart attack. A native of New Jersey, Dr. McGuire received his undergraduate degree from Seton Hall University in South Orange and earned his medical degree from the State University of New York, Downstate Medical Center in Brooklyn, in 1936. He pursued graduate training in surgery at United Hospitals of Newark and Postgraduate Hospital in New York, and in bronchoesophagology and cardiovascular surgery at Hahnemann Medical College in Philadelphia. He was attending thoracic and cardiovascular surgeon at United Hospitals of Newark, St. Barnabas Medical Center in Livingston, and St. Mary's Hospital in Orange, and senior attending surgeon at St. Michael's Medical Center in Newark. During the 1940's he had been a member of the faculty in the department of surgery at New York University College of Medicine.

Dr. McGuire was a Fellow of the American College of Surgeons and a founding member of the American Trauma Society. He had held many leadership positions in medical organizations, including the presidency of the Essex County Medical Society, the New Jersey Society of Surgeons, the Practitioners' Club of Newark, and the Physicians' Club of Essex County. He was currently secretary of the State Board of Medical Examiners and a member of the Board of Trustees of the Medical-Surgical Plan of New Jersey. Dr. McGuire was 66 years old at the time of his death.

Dr. Adolph Stern

Word has just been received of the sudden and untimely death of Adolph Stern, M.D., at his home on February 9. A native of New Jersey, Dr. Stern was graduated from Harvard Medical School, class of 1957, and went on to residencies in general surgery at Lenox Hill Hospital in New York, Hahnemann Medical College, Philadelphia, the Veterans Administration Hospitals in New York, and Jewish Hospital Medical Center in Brooklyn. He had been associated with several hospitals in New York and New Jersey in the departments of emergency medicine, and as a physician in New York correctional institutions. During 1974 he briefly maintained a private practice in Fort Lee.

Physicians' Relief Fund

The Physicians' Relief Fund of The Medical Society of New Jersey is available to members of MSNJ in need of financial assistance in time of emergency or catastrophe. Applications are made through your county medical society—write or call the Secretary or the Executive Secretary for information.

From the Bicentennial Medical Exhibit Display
(Currently housed at the State Museum in Trenton)

Lawrence Van Derveer, M.D.

Portrait — Pastel on paper, artist unknown (on loan from The Medical Society of New Jersey)

Dr. Van Derveer was a founder of The Medical Society of New Jersey and in 1784 became its twelfth President.

BOOK REVIEW

Hypnosis in the Relief of Pain. Ernest R. and Josephine R. Hilgard. Los Altos, California, William Kaufmann, Inc., 1975, Pp. 262 ($12.50)

In this review of laboratory and clinical research, written for clinicians by two eminent research scientists, the authors argue convincingly that hypnosis can usefully supplement or, in some cases, even replace conventional chemical and surgical methods of analgesia and anesthesia where the latter are not completely effective or are otherwise contraindicated. Although the text is lucid and non-technical, annotated reference sections at the end of each chapter are provided for the reader who is interested in exploring issues in more depth.

The first section of the book reviews what is known about hypnosis, pain, and the various methods of reducing pain. It is known, for example, that although hypnosis, placebos, relaxation, and waking-suggestion all have some elements in common, hypnosis is more effective than the other three. Chemical anesthesia and analgesia may interact with psychological factors, and their effects can be amplified by appropriate use of hypnosis. Hypnosis can, in susceptible individuals, reduce the *perception* of pain, the *suffering* that results from pain, and the anxiety that results from conditions that produce the pain — and it can do these independently or together. These effects can be profound and, through use of self hypnosis and posthypnotic suggestion, long lasting. What the authors fail to emphasize sufficiently, however, is that highly suggestible subjects comprise less than 15 percent of the adult population, and that hypnotic procedures may be of little value to the majority of people.

The middle section of the book presents ways in which hypnosis can be used for pain reduction in cancer, obstetrics, surgery, and dentistry. Specific techniques and numerous case studies are described and detailed, and principles of hypnotic treatment are given. Available research is reviewed and evaluated.

The final section includes a useful clinical scale for assessing hypnotic susceptibility and a list of reliable sources of hypnotic services.

It is rare that laboratory researchers write a book that is so well tuned to the needs of clinicians. Here the authors combine clinical sophistication with a thorough understanding of the findings and limitations of available empirical research. This book is "must" reading for anyone whose work involves helping people who are in pain.

Paul Lehrer, Ph.D.

CLASSIFIED ADVERTISEMENTS

AVAILABLE—Desires group, solo or hospital based position. Specialty medical oncology, board eligible, graduate L. T. Medical Bombay, India October 1970. Available July 1976. Abdul G. Mundia, M.D., 73-17, 260th Street, Glen Oaks, New York 11004.

AVAILABLE—Desires hospital based position. Specialty rehabilitation medicine, board eligible, graduate Kashiung, Taiwan 1967. Available January 1977. Jau-Shiung Huang, M.D., 37-16, 83rd Street, Apt. 29, Jackson Heights, New York 11372.

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